

# AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

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ESTABLISHED IN 1831.

PUBLISHED WEEKLY BY J. H. SCHULTZ & CO., AT NO. 9 SPRUCE ST., NEW-YORK, AT FIVE DOLLARS PER ANNUM IN ADVANCE.

SECOND QUARTO SERIES, VOL. XI., No 13.]

SATURDAY, MARCH 31, 1855.

[WHOLE No. 989, VOL. XXVIII.]

Messrs. ALGAR & STREET, No. 11 Clements Lane, Lombard Street, LONDON, are the authorised European Agents for the Journal.

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## American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO., No. 9 SPRUCE ST.

New York, Saturday, March 31, 1855.

### New Railroad Projects.

When railroads in the interior, and particularly in the Western States, were commenced, their financial success was taken for granted. Where there were few or no roads existing, all projects were regarded with nearly equal favor. Sufficient evidence had not been developed to point out what were to be the great routes of travel and commerce; consequently there was comparatively little discrimination used in the purchase of railroad securities—their market value frequently depending upon causes having little reference to their real value.

This state of things is now very much changed. An immense number of roads have been built; some successful; others not. This fact has taught the public the necessity of greater caution in the purchase of railroad securities. They are no longer taken, because they are such. It has become, therefore, very difficult to sell bonds of a class which two years since would have readily

found purchasers. Another feeling is exerting a very strong influence. Almost every person in the United States possessing property, is the owner of more or less of railroad stocks or bonds. Before he became interested in them, he had no partialities, but felt kindly toward all projects. Now he has become a rigid conservative, and naturally sides against new ones, for fear they will injure those in which he is interested.

While, from the causes stated, it has become very difficult to sell bonds of new projects at any rate, the number of second rate and comparatively worthless securities attempted to be forced upon the market has vastly increased. The object for which in many cases railroads are built, is very different from what it was a few years since. Then the object was a road built for the public convenience, at the lowest possible cost. Now a great many projects before the public, are roads, the leading object of which is to make money out of construction; the incidental advantages arising therefrom being entirely a minor consideration. The most common mode resorted to to make money, is to have the nominal cost of the road, as measured by the amount of its stock and securities, greatly exceed its actual cost. If these securities can be sold, say at seventy-five cents on the dollar, a very handsome thing is thus made by the parties getting it up.

Another artifice now much resorted to, with the same object, is stock subscriptions payable in land. We can refer to instances of the kind, where lands have been put in to companies at ten times their cost or value. If stock and bonds issued upon such subscriptions can be sold, the amount of profit to the getters up of such schemes is at once seen. Numerous projects based mainly upon such subscriptions are now attempted to be forced upon the market, but, we are glad, with comparatively little success. Railroad bonds are too little in vogue at the present time to hold out to the projectors of speculative or doubtful schemes much hope for success.

Subscriptions in lands to railroads are to be productive of a great deal of harm in another way. In many instances in the West such subscriptions bld fair to entangle a very large number of people, and a considerable amount of real estate in almost inextricable confusion. Designing men go

about, and by drawing a brilliant picture of the advantage that a railroad would confer, or of the value of its stock, often induce people to put their farms or portions of them into the project; receiving stock therefor. The road is not built. The proceeds of the landed subscription are eaten up in expenses, or otherwise made away with, and the unlucky holder of the stock finds himself not only without his farm, but also without anything valuable to show for it. Already large numbers of people find themselves in this predicament, and the evil effects of the course complained of are just showing themselves.

Now in all this business there is only one safe way. If people want railroads they must pay for them as they go. A good project, with half its cost made up by domestic cash subscription, can borrow an equal amount on the bonds. If they cannot, or will not do this, they must not hope for money from this quarter. This rule is alike required for the good of those building railroads as of those purchasing their securities.

We have been induced to make these remarks by the recent efforts of several railroad companies to sell in this market securities, which appear to us to have no adequate basis; among which we particularize the Fort Wayne and Southern, and the Evansville, Indianapolis and Cleveland Straight line railroads. The former of these have recently made two unsuccessful attempts to sell their bonds in this market at auction. It appears to us that the road cannot be constructed, and that it would be entirely superfluous, if built. We do not think the company can show any sufficient security for the bonds offered. The absence of any evidence of the fact is conclusive proof that there is none. The character of the parties employed by the company, especially the person who certifies to the value of the securities, is not calculated to win confidence, and the refusal of the public to endorse it, is gratifying evidence that our people are carefully scrutinizing whatever is offered them, and should teach a lesson to those employed in getting up similar schemes.

The line of the proposed Evansville, Indianapolis and Cleveland extends from Evansville to the State line of Ohio, a distance of some 240 miles. Although the work of construction on this road has been recently commenced, it is already, we

understand, in the market with a batch of *real estate bonds*, not secured by any mortgage on the road, but which are mere promises to pay. This project we regard as, at present, uncalled for. It has been put under contract on such terms as prove it to us, to be a *speculation*. The estimated cost of graduation, masonry, bridging, &c., &c., was \$15,000 per mile. The same items have been placed under contract by the parties making the estimate, at \$30,000 per mile, or one hundred per cent. profit! This transaction shows the character of the project. At \$30,000 per mile for the above items, the total cost of the road will be \$40,000 per mile, or \$6,400,000 for the whole road, estimating the length of line at 160 miles. The same amount of work might undoubtedly be done for one-half the above sum. Here there is a speculation, the profits of which are intended to be counted by *millions*. Is it right that the public should be saddled by such an immense amount of fictitious securities? Is it right that an additional stain should be thrown upon our railroad enterprises, by building any more *unproductive roads*? Suppose the project fail, what then is to become of the Real Estate Bonds? If the parties immediately to be profited by the road are able to build it, we certainly have no objections. But it is not right that Eastern people should be seduced into taking its securities which may turn out to be worthless, but one-half of which in any event represents profits to *somebody*. The company have entirely subverted the only legitimate and safe mode of proceeding—that of raising money from stock subscriptions *first*, and by the sale of bonds afterwards. They first come upon the market with *bonds*; not mortgage bonds, but to which a future issue of mortgage bonds may have a preference. We do not think this way of doing things to be right, and we trust the public will concur with us in opinion.

There is another objection to the construction of the above road. That portion of its line from Indianapolis to the Ohio State line is parallel to a railroad already in operation, the Indianapolis and Bellefontaine. The person instrumental in building this, is the President of the Evansville, Indianapolis and Cleveland road, who has thus proposed to ruin a work in which he induced the public to invest on the ground that it was the *best* route between the termini. This distance he now claims can be abridged some 3 miles. If he succeed in building his new road he will ruin the old one. Having been instrumental in inducing the public to build one road, we contend he is estopped by every honorable consideration from doing anything that may render it valueless. We certainly cannot aid such an undertaking.

The Southern Division of the Evansville, Indianapolis and Cleveland straight line railroad between Evansville and Indianapolis will cost nearly six and a-half millions. Before attempting to borrow, we contend that one-half this amount should be first subscribed and paid up by the people on the line of the road. We do not believe one million in cash can be so raised. Is it not the height of folly, therefore, for the public to buy the securities of a road that has so little intrinsic merit?

With regard to the above, and similar projects, we do not interfere so long as their projectors remain at home. But when they come before the

Eastern public with their schemes, they make us so far a party to their operations, as at least to call from us a note of warning.

#### Shall our Railroads be Taxed for the Support of the State Government?

On the 20th instant, the Governor of this State submitted to the Legislature a message, recommending the imposition of tolls upon the railroads competing with the canals, as the means for replenishing an exhausted treasury. We cannot allow a "recommendation," involving in an eminent degree the welfare of our railroads and the public, to pass unnoticed; nor without using the occasion for insisting upon what we believe to be the correct policy to be pursued in such cases, and the proper functions of government in all that relates to the movement of commerce.

The exigency is as follows.—For a long period, the canal tolls were not only sufficient to meet the current charges for their maintenance and interest on their cost, but, with other sources of revenue, defrayed the expenses of the State without result to direct taxation, and returned to the State Treasury many times their original cost. Up to the time of the adoption of the present constitution of the State, the direction and appropriation of the canal revenues remained under legislative control. That instrument, however, divested this body of discretionary power over the revenues, and provided that, among other uses, there should be annually set apart \$1,850,000 as follows—

To pay interest and principal on the canal debt .....	\$1,800,000
Do. to general fund debt .....	350,000
To the support of government .....	200,000
	\$1,850,000

Without raising the question as to the propriety of legislating by constitutional enactments, and subjecting to an immutable standard matters constantly fluctuating, and over which the umpirage can exert no control, the above provisions were undoubtedly inserted under a belief that the revenues of the canal would continue to augment in the ratio of their previous increase. Such, however, has not proved to be the fact. The expenditures of government, have in the meantime gone on increasing from the numerous calls made upon it, among the more important of which is the interest arising on the debt recently contracted for the enlargement. The excess, in the present year, of expenditures over receipts from all sources is estimated at \$541,033; for 1856, \$900,626, and for 1857, \$1,011,355, assuming the revenues of the canals to produce annually, \$2,988,665, the receipts of the past year. That they will not exceed this sum till the enlargement shall be completed is inferred from the fact that they have regularly decreased for the past three years, as follows—

Receipts for 1852 .....	\$3,179,145
" 1853 .....	3,168,546
" 1854 .....	2,988,665

Admitting, therefore, that the necessities of the State Government are to be largely in advance of the ordinary sources of revenue; the question for consideration is, what *extraordinary* measures shall be resorted to, to supply the deficit.

The proposition submitted to the Legislature is to tax the movement of freight on the railroads of the State coming in competition with the

canals, on the ground that the decrease of the canal revenues has been due to the diversion of their business to the roads. This proposition we regard as so unsound in principle and injurious in practice, that we cannot suffer it to pass without a thorough demonstration of its fallacy.

The object of every improved highway is to reduce the cost of transportation. Previous to the construction of the Erie Canal a common road as good as could be constructed out of the soil over which it passed, existed between Albany and Buffalo; yet we are informed in a report submitted to the State Legislature of 1817, and which formed the basis of action which led to the construction of the Erie Canal, that the cost of transporting a ton of merchandize from Buffalo to New York was \$100, and the time required 20 days! It was to reduce this cost for the same service from one hundred to five dollars, and the time from 20 to 5 days, that the canal was proposed and constructed. The idea of deriving a revenue from it, sufficient to liquidate its own cost, and defray for a long series of years the expenses of the State Government, never entered the mind of the most sanguine as to the result. It was the commercial advantages that were to flow to the people of the State by opening to their inaccessible territory an avenue to market, and of securing to themselves the vast commerce of the Lakes, and the valley of the Mississippi, that led to the construction of the canals. These were the ennobling themes that inspired the hearts, and made eloquent the lips of those great men to whose unflinching faith and perseverance, amid obloquy and opposition, New York owes her present exalted position. The object they sought to accomplish, was the *reduction* of the cost of the transportation to its lowest possible limit, not the devising of a cunning method for the taxing of commerce as a means of supporting the State, or for any other purpose, than the facilitation of its own movement.

In process of time, however, by the system of tolls imposed, the canals produced a sum greater than was required for the payment of charges upon them and the interest on their cost. The balance went into the State Treasury, and was used for the ordinary expenditures of government, which were thus, in a great measure, thrown upon the commerce passing between Albany and Buffalo,—a most mistaken policy, as we think we can show. Time, however, sanctioned the error and, unfortunately, inculcated the sentiment that the canal revenues were the *proper* source by which nearly all the expenditures of government were to be defrayed. The principle upon which tolls should alone be imposed,—that they never should exceed the cost of transportation, was thus lost sight of, and that which under any other circumstances would be considered an enormity, sufficient to arouse the indignation of a whole people, is regarded as the only proper source of revenue for the ordinary expenses of government. It is easy to see how insensibly Governor Clark has been led on to the untenable ground he now stands on, and to submit a proposition which we are confident his good sense will revolt against as soon as it is stripped of the guises which conceal its real nature.

The only correct principle upon which taxes can be assessed is that which shall produce a



given revenue in a manner involving the least harm or loss to the tax-payer. The tax, therefore, should never deprive him of the means of payment; or what is the same thing, should never interfere with the processes of labor. It should only tax results. For instance, a cargo of lumber transported over the Erie Canal, costing at the place of its manufacture \$500, may be, and often is worked up into results the value of which is fifty thousand dollars. A tax of one per cent. on the result in this case, and which would not be regarded as onerous, would produce \$500. A tax to an equal amount imposed in the shape of toll, or transportation charges, would be equal to the full value of the article at the place of shipment, and prevent its being sent to market at all, leaving the State without revenue, and a thousand people, perhaps, without employment. The above illustration may serve for every article transported on the canal. Most of the Western products which form the basis upon which rest the vast and ramified interests of the East, have so insignificant a value at the places of their production, compared with what is added before they reach the consumer, that the imposition of a few cents per ton to the charges of transportation, would destroy their commercial value altogether, and with it, the vast interests and the numerous communities, whose employment and support consist in adapting such material to the uses of life. Raw material disunited from labor possesses no value. To throw obstacles in the way of the combination of the two, is to keep man a savage, and nature a desert. The degree of civilization, wealth and prosperity of every country, consequently, is exactly measured by the number and excellence of its roads. The creation of an improved public highway is the greatest gift that a man can confer upon his fellows, and genius has not a more fitting vocation, and none in which she has achieved sublimer results, than in cheapening the cost of transportation, and in reducing the time required for its movement.

The Erie Canal was constructed at a period when works of this kind were the most approved instruments of the internal commerce of a country. It was a vast improvement over the ordinary highway. But since it was completed, the inventive genius of the age has developed and perfected the railway, which, in many particulars, is as great an improvement upon the canal, as is the latter over the common earth road. Now the real point to be decided is whether we shall profit by the progress of discovery and invention, or shall we ignore both, under the delusion, that an effete past is worth preserving; because it has cost us something. The Governor takes the affirmative of the proposition. He says, practically, "we have a work on hand constructed in a past generation, and which has been superseded by more improved methods—which if allowed, will draw off its trade and render it unproductive." To show that we have not mis-stated his proposition, we quote the following from his recent message.

In 1851, the laws imposing canal tolls upon railroad tonnage, as well as those prohibiting any roads from carrying freight, were repealed, and at once the door was thrown open, and free competition on the part of railroads with the canals for the carriage of freight invited. This opportunity the railroads have improved with all the skill and assiduity that talent, energy and money could

secure. The result is before us.—Although the resources of the great West are being developed to a largely increased extent annually; although new avenues and facilities are being opened, increasing the area and amount of business, and of property forwarded by some of those rival routes through our State to the great commercial mart, the revenues of the canals have diminished and are diminishing, while the freight and the receipts from freight by the railroads, are annually, monthly and daily, increasing.

The question which relates to the needed provision for the deficiency in these revenues, involves the consideration of the causes which have created it. From the suggestions already made, it is evident that it is partly attributable to the diversion of freight to railroads; and this is made still more apparent from the facts and statistics put forth in the Auditor's report lately presented upon the tolls, trade and tonnage of the canals. A comparison is made in that report of the business of the State canals and several of the principal railroads for the years 1853 and 1854, and it shows conclusively that the transit of freight is to a very great extent, and much to the injury of the State, diverted from the State canals to the railroad lines. The results are summed up in the report referred to as follows:

"The total movement or tons carried one mile on the canals during the last year decreased 31,730,889 tons, while on the three trunk railroads alone it increased 55,736,450 tons. That the actual tonnage on the canals during that period decreased 61,991 tons, and their revenues decreased \$431,152, while the tonnage on those three roads alone increased 316,452 tons, and their revenues from freight alone increased \$1,520,688.

The decrease of tonnage on the canals for that period upon the products of the forest, was..... 52,780 tons.  
Upon vegetable food ..... 167,565 "  
And upon merchandize ..... 52,305 "

There was an increase upon those three roads alone upon the product of the forest of..... 63,174 tons.  
Vegetable food ..... 123,436 "  
And merchandize ..... 77,135 "

This diversion existing and rendering taxation necessary, justice and equity would single out the institutions creating and reaping the benefits of diversion as those which should be required to meet the burdens."

Here is the case fairly stated. The canal cannot compete with the railroads. The revenue of the one is daily and monthly increasing; of the other, daily and monthly decreasing. The fact shows the cause. The one is better adapted to the needs of commerce than the other—is an improvement over past experience and acquisition.

Governor Clark demonstrates the superiority of the railway over the canal. His proofs are conclusive. But he entirely forgets that the stronger the case he makes out for relief, the stronger the reason why none should be extended. In such case the relief costs more than it comes to. Let us illustrate this point. We will suppose the Erie Canal to have been a private enterprise, and that previous to its construction the State owned a McAdamized road between Albany and Buffalo which cost \$1,000,000, from the use of which she derived a large income. It is easy to see that the canal would, if left free from restrictions, supersede the road and destroy its value. How would Gov. Clark act under such an emergency? Would he say "that the road and the interests of the State must be protected by not suffering the canal to carry at a cheaper rate than the road?"—or would he not rather take the only tenable ground, "that the people of the State would be benefitted to a much greater degree by the re-

duced cost of transportation, and the facilities extended to commercial operations by means of the canal, even if that rendered their previous investments in the road entirely valueless?" We think he would not hesitate in coming to such a conclusion. Yet the proposition before him is precisely similar. He tells us that the railroads are daily increasing their business at the expense of the canals. Why? Because they are better adapted to the objects for which both were constructed. He tells us that we have vested interests in the canals which must be preserved. If we have invested in an unprofitable work, or in an exploded process, is it well to go on increasing this investment? Can we afford to perpetuate an abuse, because it has cost us something? Could an individual sustain himself for a moment, should he continue the use of machinery or processes which the inventive genius of the age has rendered valueless, when compared with those that superseded them? Would not a person persisting in such folly be regarded as insane, and better fitted for a lunatic asylum than to superintend a manufacturing or commercial establishment? There is not a doubt of this. Can a State wisely persist in a course which would ruin an individual? It may not become bankrupt by so doing, but it must be greatly impoverished. The only safe way is to "let the dead bury their dead." Nothing unable to stand upon its own merits is worth preserving. That a piece of machinery has cost us something is no good reason why we should continue its use. Go into a large machine shop, and not a day passes in which you will not find a tool, a process, or piece of machinery passing out of use and reckoned among the things that were, but which in their day occupied the front rank among useful inventions. That they have been supplanted and thrown aside does not argue a loss on the whole, as something better has taken their place, which more than compensates the amount of the original outlay. If railways have superseded the Erie Canal, we shall most heartily rejoice and regard the fact as the most striking and gratifying evidence of the progress of society. It would be equivalent to a greater result at a less cost, and that there is one step less between ourselves and our desires. We hope in the same manner to see railroads superseded by some contrivance which shall still more abridge labor, and advance mankind a step further on their way.

We have shown the true principle in taxation to be to tax results, not processes. If we assume to tax the latter we defeat the process, and are without either the result or revenue. Results can bear taxation; processes cannot. The reduction equal to ten cents on the cost of transporting a barrel of flour from Buffalo to New York, adds a circle of fifty miles to the area of its trade—an area, perhaps, equal to the State of Ohio. By adding the above sum to the cost of transportation, we turn off the trade of so much territory to other cities, and into other channels of trade. By attracting it we may add 50,000 to our population, and to our wealth and commerce in equal degree. Shall our State encourage such results; or shall we drive them away from us? This is the problem which the Legislature are called upon to solve. The tax, in either case, must be paid. Shall we increase or weaken our ability to pay it, by the mode in which it is levied? If we

encourage commerce to come to us, and tax the result, it will only amount to the smallest fraction of the gains we make out of it. If we tax the movement, we strangle it to an equal degree, and turn from our doors a commerce worth, perhaps, \$50,000,000 to raise \$500,000. Upon which hypothesis are we the better able to pay? We ask Gov. Clark; we ask the Legislature; we ask New York City.

The cost of the Erie and Champlain Canals up to 1854 (exclusive of the Enlargement, which has been nearly unproductive) has been only \$10,708,734. The receipts have been \$52,547,346, leaving for proceeds over cost \$40,866,213, or a profit of 400 per cent. The interest paid on the debt contracted for their construction has been \$6,330,884. The net profits arising from these works has been at least \$30,000,000, upon a cost of some \$10,000,000. The two canals are now producing a gross income of some 30 per cent. on their cost. From the excessive tolls levied, the works have been made partially instrumental in defeating the object of their construction; being taxed to support an extravagant and, in many cases, a wasteful Government, and for matters entirely outside their legitimate objects or functions. In this manner has the State lost many times more than the cost of her works. No wonder that commerce should seek to escape such exactions. For the State to pursue it to the railroads, whither it has fled, is only matched by illustration from remote history—of petty potentates, who were accustomed to live out of the impositions forced upon the unlucky merchants who came within their grasp. We can conceive no act so utterly indefensible in principle or so disastrous in results. We hope the State of New York will not be led into a measure so injurious to all her best interests, and so disgraceful to the liberality of her past legislation.

Already has the cost of transportation on the Erie Canal cut off from us a large portion of the commerce of the West. On the one hand we have the St. Lawrence and the Great Lakes, on the other the Pennsylvania and Baltimore and Ohio Railroads, which already divide a trade once monopolized by ourselves. The rivalry of the St. Lawrence Canals is most formidable. They have already diverted a large trade from our works. This fact is one of the strongest arguments urged for the enlargement of the Erie Canal. The former, it is well known, are ship canals, allowing the largest Lake vessels to descend to tide water. They possess, therefore, very important advantages over the Erie, which even the Enlargement cannot compensate. The rapid increase of tonnage on the St. Lawrence over the New York Canals, proves the greater facilities offered by the former. This increase in the total tonnage of each for a series of years has been as follows:

N. Y. Canals.		St. Lawrence
Years.	Tons.	Canals—Tons.
1848.....	2,796,230	164,267
1849.....	2,894,732	213,553
1850.....	3,076,617	288,103
1851.....	3,582,744	450,400
*1852.....	3,862,441	550,779

It will be seen by the above statement that

\* As we have not before us the movement on the St. Lawrence Canals for those years, we cannot institute a comparison for 1853 and 1854.

while the increase of the movement on the New York Canals for five years has been thirty-five per cent., that on the St. Lawrence Canals has been nearly three hundred and fifty per cent. To counteract this dangerous diversion has our magnificent system of railroads been built at an immense cost and sacrifice; and shall we paralyze the only works that can compete with our rivals, which threaten to turn into foreign channels the golden stream of commerce which has made New York the great commercial city of the world—and the State, the Empire State?

On the South, Philadelphia and Baltimore have railroads, recently opened, which placing these cities nearer the great seats of production than ourselves, are already dividing with us a commerce of which we had a complete monopoly. Under such circumstances, and now that resolute and successful competitors have risen on each hand, shall we embarrass the action of the only works which can insure us success in the tremendous struggle upon which we are entering?

The total value of the imports and exports, or the Foreign Commerce of the City of New York is some \$250,000,000. Suppose Governor Clark, (the State having the power,) were to submit a proposition to tax this commerce to replenish an exhausted treasury. How would such a proposition be received; the effect of which would be to send this commerce to our other great marts of trade—to Boston, Philadelphia and Baltimore—leaving our harbor deserted, our wharves and warehouses unoccupied, and our city without commercial or industrial pursuits or population. Would not such a proposition, so disastrous in results, excite an universal outburst of indignation? Yet, the proposition of Governor Clark is precisely similar in kind, only vastly more injurious in degree. Instead of taxing the commerce of France or England, he proposes to tax that of Ohio and Indiana—of the whole interior of the country—which, passing over our railroads and canals, far exceeds our foreign commerce, and amounts to more than \$300,000,000 annually; a commerce vastly more valuable to the State than its foreign, as it forms not only the basis of this, but of the greater part of all our industrial and commercial enterprises. Yet, our foreign commerce is the result of our domestic commerce, and might well bear taxation in comparison with the former.

The injustice of the proposed measure is as flagrant as its impolicy. Money is wanted for expenditures to be made, perhaps, in St. Lawrence or Suffolk Counties. How should such charges be paid? Governor Clark says "levy taxes upon the farmers and millers of Ohio and Michigan who send their produce to New York; upon the Western merchant who comes here to buy his goods." How such a system can be reconciled with justice is more than we can see. If the people of St. Lawrence or Suffolk want money from the Treasury, let those who enjoy the benefit bear the burden, not the foreigner, or the citizens of Erie and Monroe Counties, upon whose trade it is proposed to impose a penalty for coming here to enrich us.

We have thus presented a few, and only a few of the considerations that could be urged against the proposed measure. We have treated it purely in its economic aspects. We are confident that the good sense of Governor Clark has been misled by assuming precedent to be founded upon a cor-

rect principle. It is a mistake we are all constantly committing. That in the case before us they do not agree, we are confident we have fully proved. The precedent was established when a monopoly of trade secured a comparative immunity for our errors. Such immunity no longer exists, and our only safety hereafter is in placing ourselves on the broad ground of principle, which is the only expediency.—N. Y. Times, March 26th.

#### Iron Industry of the United States,

HIGHLY VALUABLE STATISTICS.

From an abridged copy of Prof. Wilson's special Report on the New York Industrial Exhibition, lately published, we extract the following, relating to *Iron Ores and the manufactures*:

The very general distribution of iron ores throughout the Union, and the abundance of fuel which the natural forests everywhere readily supplied, gave facilities for the manufacture of iron, which in the early days of the industry was carried on in various parts of the States, and in many formed the only source from which the inhabitants could obtain their scanty supplies. Possessing in common with the other States both of the raw materials—the ores and the fuel—the New England States, owing to the advanced education and general commercial energy of her people, led the way in identifying themselves with the new industry, by forming establishments where it was carried out on a more extensive scale. Gradually, however, the existence of mineral fuel in Pennsylvania gave an advantage to that State which soon showed itself by the rapid growth of her iron industry. This continued annually to increase, while the scarcity of fuel in the New England States rendered them less able to meet the increasing demands of the market which they themselves had principally created. In 1830, Anthracite Coal was successfully used in smelting ores, and when, some few years later, it was shown that the hot blast could be as advantageously applied to Anthracite as to other furnaces, this State became at once the great centre of the industry, and speedily assumed the control of the home market. This position she has held up to the present time, and must hold it for some years to come, until the iron making resources of the States west of the Alleghanies are sufficiently developed to enable them to compete in production with their more advanced neighbors.

These great resources are as yet but very imperfectly known; geological investigations have long ago made known the existence of beds of fuel to a boundless extent, and so disposed as to offer natural facilities for working which cannot be without their results on the industrial uses to which they are applied. With these beds are associated, probably throughout the greater part of their area, beds of ironstone similar to that which we find in the Coal measures of our own country. These give to this region a material advantage over that east of the mountain range, where the Coal formation is entirely destitute of the ore beds which seem to be so bountifully distributed throughout the great Bituminous Coal field on the western side. Thus while the smelting furnace in the one district finds a ready supply of both ore and fuel immediately at hand, the location of the other has to be determined by calculations based upon the comparative cost, and other circumstances attendant upon the transport to the furnace of the two necessary materials, the fuel and the ores.

The manufacture of iron has hitherto distributed itself on the line of the great rivers, which are the natural feeders to the canals by whose medium the produce has been conveyed to the consuming districts. Thus we find the chief seat of the iron manufacture to be:

1. On the Housatonic river traversing the State of Connecticut. The production of this district is limited to charcoal iron, of the best quality, obtained from hematite scattered along the shores of the river. Spathic iron ore has recently been



discovered at Roxburg and Munro. The make of this division is consumed chiefly in the immediate district.

2. On the Hudson river traversing the State of New York, in a line nearly parallel to the former river. On this line a large production of iron by Anthracite Coal, which is delivered at an average rate of 3 dollars and 50 cents per ton, is rapidly springing up. The rich magnetic iron ores (iron 71-79 oxygen 28-21) which are traced for miles along the western side of Lake Champlain, yielding from 60 to 65 per cent. of metal on the furnace, can be mined and delivered to the coal on the Hudson at an average cost of 8 dollars per ton. On the Hudson there are six large Anthracite furnaces, and on Lake Champlain three more; but in the latter district the chief production is with charcoal, the ore being made in a kind of Catalan forge or bloomery.

3. On the Delaware and Lehigh rivers, the former of which separates the State of New Jersey from Pennsylvania, and empties itself into the Atlantic at Cape May; and the latter joins the Delaware at Easton, about 270 miles up. The Lehigh leads straight up the north-east extremity of the first great Anthracite basin, known as the "Schuylkill". Easton is about equi-distant from the Anthracite Coal-field of Pennsylvania and the primitive ore range of New Jersey, while all around, there are extensive beds of hematite, yielding about 50 per cent. of metal. The Trenton Iron Company at this place have three large furnaces in operation—two with a diameter of 20 feet, and one of 22 feet—giving an average production of 500 to 600 tons per week. On looking over the returns, which were liberally shown, some extraordinary runs were observable, amounting to upwards of 240 tons per week from the 20 feet furnace, and continuing at that rate for several weeks together. Higher up the river are the works of the Glendon Iron Company, containing four large blast furnaces. Here, in order to economize space in the engine-house, the blowing cylinders are placed immediately over the steam cylinders of the engine, so that the same piston rods, by a reciprocating movement, work the two cylinders at the same time. At Catasauqua the first furnaces in the States for the use of Anthracite iron were erected, and Mr. Crane, in the year 1837, here first successfully applied hot blast to Anthracite in iron smelting. In all the works visited, economy of production was strictly adhered to. The air was heated by the waste gases of the furnaces, and in most cases the whole steam power, whether for driving the blast or for other purposes was generated in boilers set in the upper part of the furnace, and arranged so that the heated gases played around them.

4. On the Schuylkill river, which runs into the Delaware a short distance below the city of Philadelphia, there are found, throughout the whole length of the valley, large deposits of hematite ores; these, however, are not so rich as those of the Lehigh; while the supply of the primitive oxides and carbonaceous ores is very scanty. Upon this river there are 18 blast furnaces using Anthracite Coal. Besides these, there are several small charcoal furnaces, whose fires are gradually waning away, though they still support the character of the American iron by the very excellent article produced.

5. The Susquehanna, another of the great parallel rivers running from the highlands of the interior down to the ocean, and which debouches, just below Havre de Grace, on the upper extremity of Chesapeake Bay, has along its banks large deposits of iron ore. As it traverses the three large Coal-fields, the Shamokin, the Schuylkill, and the Wyoming, and is well supplied with artificial modes of transport, it offers very great advantages in the manufacture of iron.

6. The Potomac, taking its course some 60 or 100 miles south of the Susquehanna, and running into Chesapeake Bay about midway from the ocean, is abundantly supplied with ores, chiefly hematites of good quality. Charcoal is the fuel chiefly used, although the increasing means of

communication with the Cumberland Coal-field, and also with the Anthracite basins of the Susquehanna, have given great advantages in the way of fuel to those furnaces placed within reach of the lines of transport.

7. The Ohio, and the Cumberland and Tennessee, are still only partially developed, charcoal as fuel, and the hematite ores, which are found on the out-skirts of the great Appalachian Coal-field, being the sources from which the principal portion of the iron is now produced. In the upper part of the Ohio, in the Pittsburgh district, more progress has been made; the furnaces are being worked with raw Bituminous Coal, and with the clay carbonates mixed with hematites. Limestone is also found in the immediate vicinity. Besides the production of these eight principal iron districts, a large quantity is made in widely dispersed localities, with charcoal as fuel, in small blast furnaces, or in the primitive forges or bloomeries.

The gross amount of iron produced in the several States of the Union for the year 1850, as given in the Census returns, is 540,755 tons. The number of hands employed is given at 20,298, and the market value of the produce is estimated at 12,489,077 dollars. Taking the present production of pig iron at 800,000 tons, about one-half of it is consumed for castings, and the remaining portion is left to be converted into wrought iron, at a loss in waste, &c., of about one-third. This, for practical purposes, reduces the total or available production about 130,000 tons, and leaves in round numbers 700,000 tons to meet a consumption of not less than 1,200,000 tons. This deficiency must be supplied by the produce of other countries.

The number of establishments for the conversion of pig into wrought iron in the United States is given in the Treasury returns at 422. These establishments have an invested capital of between fourteen and fifteen million dollars, and give direct employment to upwards of 13,000 workmen. The total amount manufactured in the States may be taken at 500,000 tons per annum. In general, the wrought iron works are carried on as a distinct business from the manufacture of pig iron. The following establishments, however, combine the whole process of smelting and puddling: the Trenton Iron Company, at Easton and Trenton, New Jersey; Fuller and Lord, at Boonton, New Jersey; Reeves, Buck, and Co., Phoenixville, Pennsylvania; Reeves, Abbott, and Co., at Safe Harbour, Pennsylvania; the Montour Iron Company, Danville, Pennsylvania; and the Mount Savage Iron Company, Maryland. The principal cause of the separation of the two branches is probably due to inadequacy of capital to carry on both. Rolling mills for plate and bar iron are met with throughout the States in which iron is produced. In Pennsylvania the establishments for the conversion of cast into wrought iron are numerous. At one of the country rolling mills charcoal blooms were being used, which were first worked up in a puddling furnace, and then tilted; after which they were again heated, and rolled out into plates of the required dimensions. Charcoal boiler plate fetches a higher price, and is always guaranteed by the maker, as, owing sometimes to an imperfect process of reduction in the forge, a small portion of the fuel is left mixed up with the metal, and remains even after it has passed the puddling furnace and the tilt hammer. To detect the flaw in the iron when rolled out requires great care on the part of the foreman, who carefully notices, after it has left the rollers, whether the surface cools equally all over; if any black spots appear, they show that the plate is imperfect and contains cavities in which carbonaceous matter is usually found. The spots are then marked, and the plate laid aside. In the hands of the engineer they again undergo an examination; the practice of the boiler-makers being to rule them off in one inch squares, and then test each square with the hammer, the expenses attending any unsoundness falling upon the maker.

#### Adams & Co.—The Last End of a Bank.

From the statement published by us to-day, it will be seen that the banking firm of Adams & Co., owes our citizens one million seven hundred thousand dollars. This very large amount of money, which belongs to the most deserving people in the State of California, to wit: miners, and laborers generally, has been squandered in a way which is most reprehensible. The hard earnings of men and women, who have toiled for months and years, through the criminal recklessness of this firm, have been stripped of their all. They are without money, at a time when it would have done them the most good.

By examining the assignment made by I. C. Woods, it will be seen that Adams & Co. have invested in buildings to carry on their business, \$193,991; in horses, wagons, scales, &c., \$25,000; in stage, steamboat, lumber, water, wharf and other stocks, to the amount of \$158,110. They have invested in other real estate, not needed for their business, \$33,525. In addition to this, we find that the managing partner in the firm here, I. C. Woods, has invested in land, &c., \$222,997; and in cattle, water stock, &c., 32,080, making for I. C. Woods a total of two hundred and fifty-five thousand and seventy-seven dollars; and for the firm and I. C. Woods jointly, six hundred and sixty-six thousand and three dollars.

In addition to this, we find that I. C. Woods has overdrawn his account to the amount of \$93,788. Thus, in buildings for the firm, horses, wagons, scales and land speculations, and over-drafts for the leading member of the firm, seven hundred and fifty-nine thousand, seven hundred and ninety-one dollars have been absorbed.

Here we have a banking firm in which the people of California have heretofore placed implicit confidence, which has used rising seven hundred and fifty thousand dollars, in such investments as it never ought to have touched. With the exception of scales, horses and wagons, Adams & Co. had no business with any of the property which is given in with their assets, which we have enumerated, and even these articles should never have been purchased with depositors' money.

Adams & Co. have promissory notes to the amount of \$325,000 only. Thus we find an eminent banking firm has invested but this small amount in legitimate business; while horses and houses, ranches, &c., have consumed over seven hundred and fifty thousand dollars. But if anything were wanting as a crowning point for the financial ability of the house of Adams & Co., it can be seen in the fact that I. C. Woods owes the concern for cash overdrawn, \$93,788; and has in cattle, ranches, &c., &c., a total value of two hundred and fifty-six thousand dollars!

It must be apparent by this time, that by the firm of Adams & Co. the people are to lose a very large sum of money. In the nature of things, it is not possible to realize more than fifty per cent. on a dollar of the assets, and perhaps not even so much. And this money is nearly all lost by miners and laboring people—persons who have labored long and diligently for it. Who can conceive the amount of misery which this one failure will entail upon hundreds of families, not only here, but throughout the Atlantic States.—*San Francisco Sun.*

#### Convention of Presidents and Superintendents of Southern Railroads.

A convention of Presidents and Superintendents of Southern Railroads was recently held at Augusta, Geo., at which gentlemen representing the following roads were present, viz:

Edwin Robinson, Pres. Rich. F. and Potomac Railroad.

Wirt Robinson, Vice-Pres. Rich. and Petersburg Railroad.

Hon. W. S. Ashe, Pres. Wilmington and Raleigh Railroad.

Mr. Gregg, Pres. Wilmington and Manchester Railroad.

L. F. Fleming, Superintendent Wilmington and Manchester R. R.

John Caldwell, Pres. South Carolina R. R.  
Mr. Peake, Super. South Carolina R. R.  
Mr. Bryce, Director South Carolina R. R.  
Hon. John P. King, President Georgia R. R. and  
Banking Co., and Pres. Atlanta and La Grange  
Railroad.  
George Yonge, Sup. Georgia R. R. and Banking  
Company.

Dr. Willis, Pres. Augusta and Waynesborough  
Railroad.

R. R. Cuyler, Pres. Central Railroad and Bank-  
ing Co.

W. M. Wadley, General Superintendent Central  
Railroad and Banking Co.

L. O. Reynolds, Pres. South Western R. R.  
G. W. Adams, Super. South Western R. R.

Isaac Scott, Pres. Macon and Western R. R.  
Daniel Griffin, Pres. Muscogee R. R.

B. E. Wells, Eng. and Sup. Muscogee R. R.  
Samuel G. Jones, Eng. and Sup. Mont. and W.

P. R. R.  
B. W. Darricott, Gen. Agent Inland Route.

The meeting was organized by the appointment  
of R. R. Cuyler as President, S. G. Jones, as  
Secretary.

The principal object of the convention was to  
establish an equitable and uniform system of  
fares. The subjects considered were—

1st, Rates of fare and classification of passen-  
gers.

2nd, Agencies.

3rd, Baggage, and

4th, Schedules.

On the subject of rates of fare the convention  
resolved that—

The existing rate of \$15 50 from Wilmington to  
New York, and \$21 50 from Wilmington to Mont-  
gomery, are re-affirmed with the several divisions  
between the railroads and steamboats.

That first class shall embrace all white persons  
twelve years old and upwards.

Second class shall embrace white children three  
years old, and under twelve, and negroes three  
years old and upwards, at one-half first class  
rates. That Messrs. Pollard and Jones of the  
Montgomery and West Point Railroad be requested  
to use their best endeavors to obtain a reduction  
of the fares between Montgomery and New Orleans  
to \$13, so as to make the rate from New York to  
New Orleans just \$50.

On the subject of agencies Mr. Bryce, Chairman  
reported as follows:

That the committee would recommend the ap-  
pointment of one efficient agent at New Orleans,  
at a reasonable compensation, to be paid by all  
the roads interested in the through ticket from  
Montgomery to Wilmington, in proportion to the  
amount respectively received by them, and that  
no other agent or drummer be employed by the  
companies south of Kingsville. The report was  
adopted.

On the subject of baggage, the following resolu-  
tions were adopted:

That baggage be checked between Montgomery  
and Augusta, and between Augusta and Weldon.  
That the necessary arrangements be made, and  
continued under the control of the companies be-  
tween the above named points.

That the companies here represented, will be  
responsible only for through baggage, consisting  
of ordinary wearing apparel, not exceeding one  
hundred dollars in value for each first class ticket,  
and half that sum for each second class ticket,  
and that the baggage of each first class passenger  
shall not exceed in weight 125 lbs., and that of  
each second class passenger 50 lbs. That the  
charge on extra baggage be one cent. per 100 lbs.  
per mile. As far as practicable all baggage to be  
weighed, and its weight entered upon each coupon  
of the through ticket.

The following schedules of running time were  
adopted:

#### Schedule from New York to New Orleans.

Cities.	Time of Arrival.	Time at Cities.	Time of Departure.	Running Time.
New York...			6.00 p.m.	4.00
			8.00 a.m.	4.00
Philadelphia...	10.00 p.m.	.30	10.30 p.m.	5.00
	12.00 m.	.30	12.30 p.m.	4.00
Baltimore...	3.30 a.m.	.45	4.15 a.m.	1.30
	4.30 p.m.	.30	5.00 p.m.	1.30
Washington...	5.45 a.m.	1.15	7.00 a.m.	7.00
	6.30 p.m.	1.30	8.00 p.m.	9.00
Richmond...	2.00 p.m.	.30	2.30 p.m.	1.30
	5.00 a.m.	.30	5.30 a.m.	1.30
Petersburg...	4.00 p.m.	.45	4.45 p.m.	3.15
	7.00 a.m.	.45	7.45 a.m.	3.15
Weldon.....	8.00 p.m.	1.00	9.00 p.m.	9.30
	11.00 a.m.	1.00	12.00 m.	7.30
Wilmington..	6.30 a.m.	1.00	7.30 a.m.	9.00
	7.30 p.m.	1.30	9.00 p.m.	10.30
Kingsville....	4.30 p.m.	1.00	5.30 p.m.	10.00
	7.30 a.m.	1.15	8.45 p.m.	7.30
Augusta....	3.30 a.m.	2.00	5.30 a.m.	10.30
	4.15 p.m.	2.00	6.15 p.m.	11.30
Atlanta.....	4.00 p.m.	.30	4.30 p.m.	6.00
	5.45 a.m.	1.00	6.45 a.m.	5.00
West Point..	10.30 p.m.	1.00	11.30 p.m.	7.00
	11.45 a.m.	.30	12.15 p.m.	6.30
Millen.....	7.45 a.m.	.30	8.15 a.m.	7.00
	8.30 p.m.	.45	9.15 p.m.	5.15
Macon.....	3.15 p.m.	1.00	4.15 p.m.	6.30
	2.30 a.m.	1.00	3.30 a.m.	7.30
Columbus....	10.45 p.m.	1.15	12.00 night.	6.30
	11.00 a.m.	1.30	12.30 p.m.	6.15
Montgomery.	6.30 a.m.			
	6.45 p.m.	2.15	9.00 p.m.	36.00
Mobile.....	9.00 a.m.	2.00	11.00 a.m.	19.00
New Orleans..	6.00 a.m.			

#### Schedule from New Orleans to New York.

Cities.	Time of Arrival.	Time at Cities.	Time of Departure.	Running Time.
New Orleans..			10.00 a.m.	18.00
Mobile.....	4.00 a.m.	2.00	6.00 a.m.	36.00
Montgomery.	6.00 p.m.	2.00	8.00 p.m.	6.30
			6.30 a.m.	7.00
Columbus....	3.00 a.m.	1.30	4.30 a.m.	5.30
	1.30 p.m.	2.00	3.30 p.m.	7.15
Macon.....	10.00 a.m.	1.15	11.15 a.m.	5.15
	10.45 p.m.	1.15	12.00 night.	5.15
Millen.....	4.30 p.m.	.30	5.00 p.m.	2.45
	5.15 a.m.	.45	6.00 a.m.	2.15
West Point..	2.30 a.m.	1.00	3.30 a.m.	5.00
	1.00 p.m.	1.00	2.00 p.m.	6.00
Atlanta.....	8.30 a.m.	.45	9.15 a.m.	10.30
	8.00 p.m.	.45	8.45 p.m.	11.30
Augusta.....	7.45 p.m.	1.00	8.45 p.m.	8.30
	8.15 a.m.	1.00	9.45 a.m.	7.00
Kingsville....	5.15 a.m.	.45	6.00 a.m.	9.00
	4.45 p.m.	.45	5.30 p.m.	11.00
Wilmington..	8.00 p.m.	1.00	4.00 p.m.	9.00
	4.30 a.m.	1.30	6.00 a.m.	7.30
Weldon.....	1.00 a.m.	.30	1.30 a.m.	3.30
	1.30 p.m.	.30	2.00 p.m.	3.30
Petersburg...	5.00 a.m.	.30	5.30 a.m.	1.30
	5.30 p.m.	.30	6.00 p.m.	1.30
Richmond...	7.00 a.m.	.30	7.30 a.m.	8.30
	7.30 p.m.	.30	8.00 p.m.	9.30
Washington..	4.00 p.m.	1.00	5.00 p.m.	1.30
	5.30 a.m.	.30	6.00 a.m.	1.30
Baltimore...	6.30 p.m.	1.00	7.30 p.m.	5.00
	7.30 a.m.	1.00	8.30 a.m.	4.00
Philadelphia.	12.30 a.m.	1.00	1.30 a.m.	4.00
	12.30 p.m.	1.30	2.00 p.m.	4.00
New York...	5.30 a.m.			
	6.00 p.m.			

A committee was appointed to wait upon the  
Postmaster General, and urge upon him the

acceptance of the above schedules, as the basis  
on which the new mail contracts should be let.

Among the resolutions of a more general char-  
acter was one urging the necessity of the con-  
struction of a railroad from Montgomery to Mo-  
bile, Ala.

The following resolutions in reference to Express  
Companies were offered and unanimously adopted:

*Resolved*, That the system of private Expresses  
which at present prevails on the various railroad  
lines, is injurious to the interests of the companies,  
depriving them of the emoluments of a large and  
profitable portion of their business, and ought to  
be discontinued as soon as it can be done consis-  
tently with present engagements.

*Resolved*, That the companies represented at the  
present meeting will recommend to their re-  
spective Boards not to enter into any new con-  
tracts, or extend existing ones beyond the first  
day of March next.

*Resolved*, That the Chairman call another meet-  
ing, to be holden in this city during the month of  
December next, inviting representatives from the  
various companies interested, to consider the pro-  
priety of themselves establishing an Express, and  
to act upon any other matters connected with the  
interests of the companies.

It was also on motion

*Resolved*, That the convention be considered a  
permanent organization, and known as "the  
Southern Railroad Association," for the purpose  
of promoting the interests of Southern roads, and  
its members shall consist of the Presidents and  
Superintendents of the same. That its next regu-  
lar meeting shall be held at Augusta, on the 2nd  
Wednesday of December next, and the President  
be authorized to call meetings at such other times  
and places as he may think proper.

#### Tonnage of the Pennsylvania Railroad.

The official statement of the tonnage carried  
over this line for 1854 has been lately published.  
The total *through* freight carried West was lbs.  
45,932,640 first class, lbs. 22,977,912 second class,  
lbs. 3,667,662 third class, and lbs. 17,654,124  
fourth class, total lbs. 89,935,338. The eastward  
through freight amounted to lbs. 107,651,905,  
more than two-thirds of which were of fourth  
class. The westward going *way* freight was lbs.  
26,632,018; while that received at Philadelphia  
from way stations was lbs. 95,933,157 of which  
eight-ninths were fourth class freight.

The entire business shows a very large increase  
over 1853; that sent from Philadelphia to Pitts-  
burg being twelve and one-quarter millions; from  
Philadelphia to way stations, nearly five millions,  
from Pittsburg to Philadelphia, nearly thirty  
millions, and from Pittsburg to way stations, over  
fifty-eight million pounds more than in the pre-  
vious year. Adding to this the increase of ton-  
nage between way stations, we have a grand total  
of lbs. 180,927,345 carried on the road more than  
in 1853. The annexed statement shows some of  
the principal articles carried and their respective  
weights.

Boots, shoes, hats, &c.....	lbs. 5,990,569
Books and stationery.....	2,379,204
Coffee.....	4,587,810
Dry goods.....	38,741,429
Groceries.....	4,045,662
Hardware.....	8,705,265
Iron, wrought.....	10,188,883
Leather.....	4,559,385
Lard, Oil, and Tallow.....	9,458,806
Lumber.....	7,804,905
Machinery and Castings.....	4,774,188
Salt Meats and Fish.....	37,878,728
Alcohol and Spirituous Liquors.....	4,639,133



**Bush & Lobdell.**

The roof of one of the foundries of Bush & Lobdell, Wilmington, Delaware, was destroyed by fire on Wednesday night, 21st inst. Their business will be continued in their remaining foundry and shops, and orders received for railroad wheels, axles, &c, will be promptly executed as heretofore. The building damaged by fire will be immediately repaired.

Yours respectfully,

BUSH & LOBDELL.

**Virginia and Tennessee Railroad.**

Comparative statement of receipts for the months of October, November and December, 1853, and Jan'y and Feb'y, 1854, and the same months in 1854 and 1855.

**RECEIPTS IN 1853 AND 1854.**

	Receipts from Freight.	Receipts from Passengers, Mail and Express Freight.	Totals.
1853, October..	\$10,477 57	\$4,039 43	\$14,517 00
Novemb'r	7,541 50	3,523 93	11,065 43
Decemb'r	7,615 58	4,023 91	11,639 49
1854, Jan'y....	4,465 27	3,334 57	7,799 84
Feb'y ...	5,553 19	2,875 60	8,428 79
Total.....			\$58,450 55

**RECEIPTS IN 1854 AND 1855.**

1854, October..	\$12,933 88	\$5,460 34	\$18,394 22
Novemb'r	14,165 24	6,406 96	20,572 20
Decemb'r	12,362 32	7,644 81	20,007 13
1855, Jan'y....	10,780 28	7,000 55	17,780 83
Feb'y ...	9,068 44	5,448 23	14,516 57
Total.....			\$91,271 05

Increase \$37,820 50, or over 70 per cent.

E. H. GILL, Sup't.

**Railroads in Maine.**

Statement showing the comparative operations of the Railroads in Maine at different periods.

Name.	Length.	Cost.	No. of Passengers.	Receipts from Passengers.	Receipts from Freight.
Atlantic and St. Lawrence.....	47	\$2,244,814	151,100	\$83,528	\$54,042
Androscoggin and Kennebec.....	55	1,621,878	79,492	58,203	34,053
Kennebec and Portland.....	34	1,000,000	96,964	60,424	19,562
Portland, Saco and Portsmouth.....	51	1,313,000	183,564	192,443	36,993
Bangor and Piscataquis.....	13	350,000	35,000	14,000	4,800
Buckfield Branch.....	12	120,000	5,882	2,568	4,620
Calais and Baring.....	6	120,000			
York and Cumberland.....	9	380,000	5,000	1,250	300
	227	\$7,129,692	507,002	\$412,501	\$154,040

Name.	Length.	Cost.	No. of Passengers.	Receipts from Passengers.	Receipts from Freight.	Miscellaneous.	Totals.
Atlantic and St. Lawrence.....	149	\$5,306,720	161,384	\$130,475	\$167,733	\$17,869	\$316,088
Androscoggin and Kennebec.....	65	2,080,140	110,754	79,305	68,170	6,594	\$154,106
Androscoggin.....	20	315,865	20,747	9,188	9,565	438	19,152
Bangor and Piscataquis.....	18	188,913	72,178	23,269	18,911	1,967	43,188
Calais and Baring.....	6	217,265	14,564	1,361	25,675	1,001	28,038
Kennebec and Portland.....	72½	2,520,981	241,671	134,482	34,638	7,941	177,088
Portland, Saco and Portsmouth.....	7½	100,000	241,671	187,808	9,715	100	177,088
Portland, Saco and Portsmouth.....	61	1,308,895	297,818	187,808	68,197	16,061	262,077
York and Cumberland.....	18	748,609	85,170	18,905	18,905	284	262,077
Buckfield Branch.....	12						54,361
	404	\$12,681,878	919,106	\$600,988	\$411,495	\$52,235	\$1,063,730

It will be seen by the above that in 1850, Maine had 227 miles of railway in operation, costing

\$7,119,692, carrying 595,721 passengers, for which it received \$412,501, and 131,916 tons of freight, receiving therefor \$154,010. The total receipts of the railways of Maine for 1850, was \$566,511.

In 1854, the railways of Maine had cost \$15,000,000. They carried 1,066,352 passengers, and the total receipts for 1854, \$1,280,312.—*State of Maine.*

**Can a Stranger Plead Usury?**

It is well established that this is a personal defense, and cannot be set up by a stranger to the original transaction. (Beading v. Weston, 7 Conn. 413. De Wolf v. Johnson, 10 Wheat. 367.) The Chancellor, in Cole v. Savage, (10 Paige, 583,) attempted to overturn this rule, upon the strength of the Revised Statutes, (1 R. S. 772) and the statute of 1837, Sess. L. of 1837, p. 487, sec. 4,) and to extend the defense beyond the "borrower" and his sureties, heirs, devisees, and personal representatives, and to confer it also upon the subsequent guaranties of premises, subject to usurious mortgage. But the Court for the Correction of Errors, in Post v. Bank of Utica, (7 Hill 391,) overruled his decision, and even under our peculiar statutes confined the defense to those persons only who were bound by the original contract to pay the sum borrowed. (Livingston v. Harris, 11 Wend. 329.)

Also: It is not competent for a subsequent mortgage to set up usury in the first lien. That is a personal defense, confined to the borrower, his sureties, heirs, devisees, and representatives, or to those persons only who are bound, by the original contract, to pay the sum borrowed.

**Railroad Bridge Across the Ohio.**

A proposition has been made to the city of Wheeling by the Baltimore and Ohio and the Central Ohio Railroad Companies, for the erection by the said companies of a railroad bridge across the Ohio river at such point between the northern line of the City of Wheeling and Benwood, as shall in the judgment of the proper officers of the said companies, afford the best and least expensive crossing of the said river and connection between the roads of said companies, said bridge to be commenced within six months after the same shall have been authorized by law. Immediately after the completion of said bridge and approaches, the Central Ohio Railroad Company will extend its road across the bridge and thence to a convenient and proper depot to be established within the limits of the city of Wheeling. The Central Ohio Railroad Company will extend its road from its present temporary terminus to some point not lower down the Ohio river than West Wheeling. And will have the same in running order within twelve months from the date of the adoption of these articles. This proposition has been made to the City Councils of Wheeling, on the condition that upon the ratification and execution of an agreement embodying these propositions by the Baltimore and Ohio Railroad Company, the Central Ohio Railroad Company and the City of Wheeling, the City of Wheeling will dismiss its suit of proceedings in chancery now pending against the Baltimore and Ohio Railroad company.—*Baltimore Patriot.*

**Hocking Valley Railroad.**

This road, according to the report of Mr. Latrobe, will be seventy miles in length, mainly following the Hocking Valley and traversing a region offering a heavy local trade. The grades and curves are slight—no grade exceeding fifty-three feet to the mile, and no curve upon a radius of less than 1433 feet—out of the 70 miles, 41 are upon a level and 44 upon a straight line. At Logan, this route intersects that of the Scioto and Hocking Valley Railroad, and at Athens that of the Marietta and Cincinnati Railroad—two most important connections. The cost of the road is estimated at \$662,312; its gross annual revenue, \$307,350; total current expenses, \$130,711; net income, \$196,630; interest on capital, \$128,849; surplus profits, \$47,790.

The American Railroad Journal \$6 per annum in advance. Advertising per annum \$1.25 per line.

Railway Map of the United States showing all the Railways in operation, progress and projected—on rollers \$3—pocket edition, by mail, \$1.

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A copy of the pocket edition of our new Map, corrected to 1st January, will be given to each new Subscriber and to each of the others who have paid up to Jan'y 1st, 1855; also to those who have not yet paid, as fast as they pay up.

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## American Railroad Journal.

Saturday, March 31, 1855.

### Numbers of the Journal Wanted.

Subscribers having the numbers of the Journal of February 3rd, and March 17th, 1855, which they do not wish to keep for binding, will confer a great favor by sending them to us, by mail—as our own files are short.

### New York Canals—Wisdom Yet.

We are glad to see that all wisdom has not yet died out in this State. To such as are of a different opinion, we communicate to them the following extracts upon a statement recently made by the Auditor of the Canal Department, to the Canal Board.

"For the past year," says the Auditor, "many of the Banks in the Western portion of the State, selected as depositories of Canal Tolls, have almost exclusively confined their business to paper having a very short time to run, varying from ten to thirty days; the effect of which has been, and must necessarily be, the creation of a division in favor of the railroad rather than the canal transportation. For while the forwarder by the railroad can press his produce to market, and realize receipts from it in time to meet such short paper when it becomes due; the forwarder by canal requires time, and is unable to do so. He is obliged to meet his note from other sources, or abandon the canal and transport by the road. The railroad patrons thereby get all they need—the canal patrons go unaccommodated.

In his opinion it is competent for the Canal Board in discharge of their duty to the State, to annex such a condition to the deposit of their tolls as will secure to the forwarders by the canal, in Banks participating in the deposits of canal monies, the discount of such a class of paper as will promote the interests and business of the canal, and not divert and force trade to the railroads.—He therefore recommends the adoption of the annexed resolution.

Resolved, That it is expected by this Board that all banks receiving the benefit of the deposits of the canal tolls will use the same in the discount of such paper as will tend to promote the interest and business of the canals, and not to divert trade therefrom; and that the transaction by any bank having deposits of tolls, of their business, in such manner as to create a diversion in favor of railroad rather than canal transportation, will be deemed by this Board sufficient cause for the withdrawal and transfer of the deposits from that institution.

We have never seen the wisdom contained in the foregoing, matched but once. A few years

ago when the proposed extension of the James River and Kanawha canal was up for discussion in the Virginia Legislature, one of its most enthusiastic advocates took the ground, that a canal was much more useful than the railroad which was proposed in its stead, inasmuch as the canal boat jogged along at a good easy rate, stopping at every village or tavern, leaving at one place a six-pence, at another a shilling for drinks, a lunch for man and beast, a few apples, or some such nick-nacks—by means of all which, a brisk trade was kept up, giving a business-like aspect to the whole line of the canal. A domestic commerce was thus created, and domestic products consumed on Virginia soil, and not sent to New York to pamper the bloated wealth of Wall street, or the denizens of the Fifth Avenue. Against this cheerful picture of domestic felicity and prosperity, the orator drew one of a railroad train, freighted with the wealth of the State, and compared it to the lightning course, sublime but unprofitable, leaving no trace upon the face of the earth but the blackened cinders it belched forth to blast the land! When we read the speech we made up our mind that Virginia could not be beaten. We give it up. New York can win, giving half the points in the game. Mr. Schoonmaker cannot be matched by any F. F. V. above the ground. New York is still the Empire State!

### Terre Haute and Alton Railroad.

The new loan of this company was recently taken, the subscriptions exceeding considerably the amount offered. Below we give the list of takers, which affords good evidence that the bonds were taken for actual investment, and that there will be no lack of money for the vigorous prosecution of the road. This work will undoubtedly be opened for its whole distance before the close of the present season.

The list of successful bidders is as follows:

A. Hunt & C. C. Clarke, New York....	\$5,000
Burr, Calvin, New York.....	5,000
Burr, Nathan, Auburn.....	5,000
Burr, Edwin, New York.....	5,000
Barnes, D. W., Boston.....	8,000
Barnes, James, Springfield, Mass.....	10,000
Bacon, L. S., Rochester.....	10,000
Boardman, G. S., Cazenovia.....	2,000
Brown, W. H., Norwich, N. Y.....	5,000
Butler, Charles, New York.....	25,000
Cocks, John D., Brooklyn.....	5,000
Cazet, E., New York.....	2,000
Coman, L. D., New York.....	10,000
Craft, C., Terre Haute, Indiana.....	5,000
Cary, Henry, New York.....	5,000
Chapel, R. S., Brooklyn.....	8,000
Connolly, Charles M., New York (by Gilead A. Smith).....	10,000
Denison, Marcus, Baltimore, Md.....	10,000
Doty, R. S., Rome.....	8,000
Ellsworth, Henry, New York.....	10,000
Endicott, George M., New York (by Gilead A. Smith).....	10,000
Endicott, William, New York (by Gilead A. Smith).....	10,000
Fearing, D. B., New York.....	15,000
Fisher, Denny & Co., New York.....	5,000
Henry, J. J., New York.....	3,000
Habricht, C. Edward, New York.....	5,000
Harris, Ira, Albany.....	8,000
Harriot, Samuel C., New York.....	5,000
Heriot, George, New York.....	5,000
Hubbard, Thomas H., Utica.....	20,000
Jarvis, William, Middletown, Conn.....	30,000
Jerome, L. W., New York.....	5,000
Jerome, A. G., New York.....	10,000
Jarvis, George A., Brooklyn.....	7,000

Kerr, John M., New York.....	7,000
Kellock, Geo. T., New York.....	5,000
Le Roy, Jacob R., New York (by Gilead A. Smith).....	40,000
Le Roy, Robert, New York (by Gilead A. Smith).....	10,000
Litchfield, Edwin C., New York.....	50,000
Litchfield, E. D., New York.....	5,000
Litchfield, Elisha, Cazenovia.....	10,000
Litchfield, E. B., New York.....	15,000
Leland, Francis, New York.....	5,000
Lyons, W. L., Greenwich, Conn.....	2,000
Macy, William H., New York.....	5,000
Martin, D. R., New York.....	20,000
Mattoon, William, Springfield, Mass.....	10,000
Mead, R. W., Greenwich, Conn.....	2,000
Martin, Benj. N., New York.....	5,000
McLean, D. V., Easton, Pa.....	3,000
Mead, Elkanah, Greenwich, Conn.....	1,000
Martin, Henry, Buffalo.....	10,000
Mead, Sanford, Greenwich, Conn.....	3,000
Mead, Solomon, Greenwich, Conn.....	3,000
Mackie, J. M., New York.....	10,000
Marsh, Samuel, New York.....	5,000
Morgan, E. D., New York.....	50,000
Morgan, G. D., New York.....	10,000
Noble, Curtis, New York.....	3,000
Noble, D. A., Monroe, Mich.....	10,000
O'Brien, William and John, New York.....	10,000
Olyphant, George Talbot, New York.....	30,000
Persons, C. H., New York.....	4,000
Perry, Thomas, Westerly, R. I.....	2,000
Perry, Elizabeth, Westerly, R. I.....	1,000
Perry, Charles, Westerly, R. I.....	1,000
Phelps, Willis Springfield, Mass.....	10,000
Peck, Isaac, Greenwich, Conn.....	1,000
Reynolds, Ard., Greenwich, Conn.....	5,000
Reynolds, John, G., Greenwich, Conn.....	3,000
Roberts, Charles, H., Poughkeepsie.....	2,000
Ryder, Simeon, Alton, Illinois.....	7,000
Raynor, James A., Adrian, Mich.....	10,000
Stryker, John, Rome.....	25,000
Starin, J. N., Auburn.....	10,000
Stuart, R. L. and A., New York.....	40,000
Sandford, Hiram, Paris, Illinois.....	5,000
Stacey, Edward, New York.....	7,000
Stow, S. K., Troy.....	5,000
Stout, A. G., New York.....	5,000
Slauson, Albert, New York.....	1,000
Such, James, New York.....	1,000
Smith, Gilead A., New York, (for himself and sundry parties).....	60,000
Seymour, Isaac E., New York, (by Gilead A. Smith).....	20,000
Tuckerman, Joseph, New York.....	25,000
Thompson, William D., New York.....	20,000
Talbot, Charles N., New York.....	10,000
Thompson, J., New York.....	20,000
Tant, Hamilton, G., Washington, D. C.....	1,000
Turner, R. B., Brooklyn.....	4,000
Turner, J. M., Brooklyn.....	1,000
Turner, James, Vernon.....	2,000
Utley, David, Rome.....	6,000
Van Duzer, S., New York.....	20,000
Westerly Savings Bank, Westerly, R. I.....	4,000
Washburn & Vandenhoff, New York.....	5,000
Wager, A., Rhinebeck.....	2,000
Waterman, H., New York.....	15,000
Wendell, R. Rush, Cazenovia.....	5,000
Ward, A. A., New York.....	10,000
Walch, J. G., New York.....	5,000
Total.....	\$1,000,000

### Delaware Railroad.

The State of Delaware has authorized a Public Debt, the first, we believe, in her history for twenty-five or thirty years to the amount of \$170,000 by way of aid to the Delaware Railroad Company, who are building a work to connect with the Frenchtown and New Castle and New Castle and Wilmington. The bonds bear 6 per cent. interest, to run 21 years, and to be awarded at Dover, on the 22d inst., to the highest bidders, under sealed proposals. See the advertisement of the Road Company.



**Clinton Line Extension Railroad.**

The second annual report of this company shows that, according to the latest surveys, the length of this work will be as follows:

From Hudson to New London.....	52.97 miles.
" New London to Tiffin.....	40.87 "
Total.....	93.84 "

Besides 6 miles of Sidings making the entire length of track about 100 miles. The explorations made during the year show that the line, as now located, is about three-fifths of a mile shorter than was laid down, at date of previous report. Improvements have also been made in the graduation and curvature—the whole costing about \$20,000 additional. The present maximum gradient is 43.88 feet to the mile, and the shortest curve has a maximum radius of 2292 feet.—The amount of straight line is 73.74, and of curved 20.10 miles. For 27 miles, the right of way has been granted by the townships traversed by it gratuitously; for 60 miles more, only half the expense for this purpose will fall on the company; the remainder will have to be paid for; but will not be a serious item of expense. Beyond surveys and executing contracts, little work in construction has been done. A contract has been made for the entire work on the road-bed from New London to Tiffin, which is to be furnished by the close of 1856. The state of the money market has prevented the managers from going further for the present.

There has been expended on the work thus far:

For Engineering.....	\$14,378 24
Grading and masonry.....	42,024 76
Right of way.....	1,811 98
Contingencies, interest, &c.....	7,690 85
	\$65,905 78

The receipts have been

From Stock.....	\$48,209 24
" Bills Payable.....	11,156 03
" Moses Messer, Treasurer.....	4,514 24
" Sundry accounts.....	1,936 27
	\$65,905 78

Showing their present liabilities to be \$26,760 35.

The following statement shows the resources of the company.

Present Stock subscriptions considered good.....	\$450,000
Additional Subscriptions expected.....	200,000
Stock taken already by contractors.....	108,550
" to be taken on other contracts.....	281,780
Total Stock.....	\$1,040,330
Bonds by existing contracts to be taken.....	108,550
Amount expended on work.....	65,905
Balance to be raised by Stock on loan.....	987,591

Total Cost.....\$2,202,376

The above sum which is believed to be sufficient to complete and equip the road, will give about \$23,496 per mile. The depression in labor and the price of iron, it is stated, will enable the company to accomplish the work for \$300,000 less than the original estimates. At date of report, an effort was being made to increase the stock subscription from parties resident along the line, and so far as known with very satisfactory results.

This road connects, on the east, with the Sunbury and Erie at Ridgeway, by a connecting line

which is now in progress. On the West it will be extended by the Tiffin and Ft. Wayne road to Fort Wayne, whence roads branch to Chicago, St. Louis, &c. The route will be intersected by the numerous lines crossing that part of the State of Ohio from North to South. It is claimed that this road and its connections will afford the most direct route from the great cities on the Atlantic to Chicago and the regions of the North-west; also that it is certain to receive the overland Pacific business—when it comes!

**Iron Railroad Carriages—"La Mothe's Car."**

We have been not a little surprised, that while iron has been so conveniently applied to structures of various degrees of importance,—from the stupendous railway bridge to the light cottage bedstead—no Engineer had as yet made use of it in that situation to which its quality of combining strength with lightness, seems to have peculiarly adapted it. The problem in building carriages for draft purposes must always be—what is the least weight consistent with the requisite strength—what material gives that minimum weight,—and what is the most economical arrangement of the material?

Dr. LA MOTHE seems to have considered these questions in his important invention, with a comprehensiveness hardly to have been expected in one not professionally a mechanic.

We have previously (Oct. 22d, 1853,) described the model of his Life-Preserving Car, on exhibition at the Crystal Palace. Last week we saw a car built in accordance with the principles in that model—the present structure is for the use of one the Avenue Roads in this city. It is of the largest size built for those tracks, and weighs, including the running gear, but 3,300 lbs. Such improvements have been suggested in constructing this car, that hereafter the same size will weigh less than 3,000; and the inventor is very sanguine that he has succeeded in reducing the weight to one ton.

The car now constructed approximates to our omnibuses in its form—while it leaves all the interior capacity of the present cars.

But it is for the large carriages of the steam tracks, that we especially hail this invention. The principles upon which it is constructed, being once demonstrated practically, it must at once be adopted by the railroad corporations of this country, as a matter of economy at least, if not for safety also.

For the large cars, the frames are built of spring steel; the ribs, 2 inches wide, weighing about 2.5 lbs. to the foot, are composed of 3 over-lying bands between which pass the longitudinal strips of similar dimensions; this combination being riveted at the points of intersection; additional rivets between these points, stiffen the ribs—the covering of this frame is with sheet metal. The inside is so lined that no sharp corners are presented to the body of the traveller in case of collision or other accidents of the rail.

An attachment, providing for the safety of the trains and their contents, forms an important part of the invention. Thus in case of collision, the first shock of the blow is received by a set of stout spiral springs, before reaching the breaking point of which the force comes upon an arc of spring-steel stretching the entire width of the car, and firmly bolted at the abutments. This arc is sup-

ported by a strong elliptic spring anchored behind the crown and communicating with a powerfully constructed rigid beam, that passes under the whole length of the car and into which the blow must finally be thrown. This beam is so made that if a shock can possibly occur to destroy it, the yielding shall be lateral; not upwards into the car nor yet downwards to pitch the car from the track.

Finally, if the frame be obliged to receive some part of the blow, being metallic, its flexibility will permit an amount of yielding—which tendency will be continually resisted by the elasticity of the material; so that while the car may be jammed by an extraordinary accident, it cannot be broken or destroyed.

It seems hardly necessary to enumerate the advantages of this car over all others.

It will be seen that the form need be in no manner changed from the present fashion, unless desired, so that none of the prejudices of taste have to be combated.

The price of insurance will be less than at present. The iron cannot be destroyed by fire.

Life will be more secure, and the pleasures of travel accordingly enhanced.

A most important advantage is the saving in weight since a carriage corresponding in capacity and quality of finish with those weighing 9 tons as at present constructed will, under this invention weigh but 6 tons.

The facility of repairing, in case of accident is apparent. The car now in course of construction at Jersey City, has been built with cold metal to demonstrate the truth in this particular.

In about two weeks, this car will be seen on trial in this city. We anticipate the "happy surprise" of the Avenue horses when they draw that car down town.

**Pacific Railroad Report.**

We have at last received the report of the Secretary of War, accompanying the several reports of the surveys which have been made under authority of the Government, for the purpose of determining the practicability of a railroad to the Pacific.

The surveys cover five different routes, viz:

1st. Route of 47th and 49th parallel under charge of Gov. Stevens.

2nd. Route of the 41st and 42d parallels under charge of Lieut. E. G. Beckwith.

3rd. Route of the 38th and 39th parallels under charge of Capt. Gunnison and Lieut. E. G. Beckwith.

4th. Route of the 35th parallel under charge of Lieut. Whipple.

5th. Route of the 32nd parallel under charge of Capt. J. Pope, from Preston, Texas to Dona Anna, New Mexico—under charge of Lieut. Parke, from Dona Anna to Pima Villages—under charge of Major Emery from Pima Villages to the North of the Gila—under charge of Lieut. Williamson from the Gila to the Pacific.

The report of the Secretary of War presents a summary of the evidence developed by the several surveys. We shall publish the summary entire, commencing with the Northern route. We give in our present No. the remarks of the Secretary introductory to his report.

The western portion of the continent of North America, irrespective of the mountains, is tra-

versed from north to south by a broad, elevated swell or plateau of land, which occupies the greater portion of the whole space between the Mississippi river and the Pacific ocean. The crest of this plateau, or the water-shed of the country, is nearly midway between the Pacific coast and the Mississippi. It may be represented on the map by an undulating line traced between the head-waters of the streams which flow eastward and those which flow westward. It divides the whole area between the Mississippi and the Pacific into two nearly equal portions—that on the east being somewhat the larger. This crest of the water-shed has its greatest elevation in Mexico; and thence declines to its lowest point about the latitude of 32°, where it has a height of about 5,200 feet, between the waters of the Rio Grande and those of the San Pedro, a tributary of the Gila. From this parallel it increases in altitude northward, and reaches its maximum near the 38th parallel, where it is about 10,000 feet high. Thence it declines as we pass northward; and, in latitude 42° 24', it has an elevation of, say, 7,490 feet; and in the latitude of about 47° it is reported to be at least 1,450 feet lower. The heights here given are those of the lowest passes over the crest or water-shed of the great plateau of the country, and not those of the mountain peaks and ridges which have their base upon it, and rise, in some cases, to the height of 17,000 feet into the region of perpetual snow.

The slope of the plateau on the east and south, towards the Mississippi and the Gulf of Mexico, is comparatively gentle, and in the northern part of Texas, that known by the name of the Llano Estacado or Staked Plain, is by steppes. It is traversed by the Missouri, the Platte, the Arkansas, and other large rivers, which rise among the mountains near the crest, and flow eastward and southward in channels sunk beneath the general surface-level of the plains.

Its crest, and nearly the entire distance thence to the Pacific, is occupied by high plains or basins, differing from each other in elevation from 1,000 to 3,000 feet, and by mountain peaks and ridges, varying in direction to almost every point of the compass, though they have a general course north and south. Many of these mountains, including those that bound this system, have obtained the name of chains, and a short classification of them will now be attempted, although it is to be premised that our knowledge of them is most imperfect, and the classification now made, future explorations will probably show to be erroneous. The only proper classification must be made by the geologist, after a thorough exploration for this purpose, which it will require a long period to accomplish.

These mountains may be considered as constituting three great systems, extending generally throughout our possessions in a north and south direction; and though this arrangement may not be the best or most accurate, yet it will enable us to take a comprehensive view of the whole as regards the construction of a railroad, since any direct line that can be traced from the Mississippi to the Pacific, except near the 48th and 32d parallels, will encounter each of these three systems in some point.

Calling the most eastern system No. 1, we find a portion of it, under the name of Diabolo mountains, crossing the Rio Grande, and entering Texas at the Great Canon. Its extension south into Mexico forms the east front of the Sierra Madre. Running northward, this system includes all the mountains on either side of the Rio Grande, enclosing its valley and the Salinas Basin. Those on the east form the divide between the Pecos and Salinas Basin, and between the Rio Grande and Canadian; on the west they divide the waters of the Rio Grande from those that flow to the Gulf of California. Those on the east are sometimes the Sierra Madre; and this last name is sometimes applied to those on the west. There seems to be a necessity for considering the mountains on both sides of the Rio Grande as one system. These may be said to unite near the head-

waters of the Rio Grande and Arkansas, and here the mountains have their greatest development.—The Sierra de la Plata extends to the southwest, the Elk mountains to the west, and the various chains forming the Park mountains to the north. The Park mountains, in latitude 41° 30', sink into the plateau, forming the region of the South Pass; and the only continuation we have of this system is in the Black Hills, which continue to the north, with diminished elevation, till, in latitude 46° 15', they are merged into the coteau through which the Upper Missouri makes its passage.

The mountains included in this system are the Sierra Madre, a portion of what is called the Rocky mountains, the Diabolo mountains, the Guadalupe mountains, Hueco mountains, Organ mountains, Sandia mountains, Santa Fe mountains, Sierra Blanca, Sierra Mojada, Sierra San Juan, Sierra de la Plata, Elk mountains, Park mountains, Medicine Bow mountains, and Black Hills.

System No. 1 is thus but partially gorged by the Rio Grande, whose passage of the Great Canon is wholly impracticable for any method of communication; that of El Paso is practicable.—It is completely cut through by the North Platte and Sweet Water, forming a practicable route; and is turned by the Upper Missouri.

Low mountains or hills are known to exist between the Black Hills and the Wind River chain, about the headwaters of the Yellowstone and Missouri; but this region is too little known to be treated of with confidence, and may have a decided effect in modifying this classification.

System No. 2. If, from the Great Northern Bend of the Missouri, we travel west for 450 miles, we come again upon what are called the Rocky mountains; and still further west lies the Cœur d'Alene, or Bitter Root range, the two enclosing the Bitter Root or St. Mary's valley; and both are considered as forming a part of this system. Following it to south, it includes the Wind River chain, the Bear mountains, the Uinta mountains, and the Wahsatch, which last continue as far south as it has been explored, probably forming the divide between the Great Basin and the Colorado, till the junction of the latter with the Gila.

System No. 3. From the junction of the Gila and Colorado, we find continuous mountains running to the northwest, and terminating at Point Conception, on the Pacific. On the south they are joined by the mountains forming the peninsula of California, the junction being at the San Geronio Pass, in latitude 33° 45'.

On the north, two chains leave this range in latitude 35°. One, called the Coast range and Coast mountains, lies to the west of the San Joaquin and Sacramento valleys, the waters of which break through them at the Bay of San Francisco. The other, called the Sierra Nevada, lies to the east of these valleys. A great depression, forming a plateau, is known to exist in the Sierra Nevada in latitude 40° 30', and another in latitude 42° 45', near Lake Abert. This chain may, perhaps, be considered as terminating at or in these plateaus, or to find its continuation in the Cascade or Coast range, which extend into the British possessions, being broken through by the Columbia and partly by the Klamath rivers.

The Blue mountains, to the south of the Columbia, represented as having a general northeast direction, may be considered, along with the mountains mentioned since leaving the Colorado, as forming system No. 3.

The Humboldt River chain, running north and south, (where crossed,) and separating the waters of the Humboldt or Mary's river from those of the Great Salt Lake Basin, is a marked feature; but as to its connexion, north and south, with other ranges, nothing is certain.

There seem good reasons for believing that the east and west ranges, represented as separating the Columbia River basin from the Great Basin, as well as the range represented as extending west from the Vegas of Santa Clara, are only ap-

parently such, the deception arising from the overlapping of the side spurs to chains, the general direction of which is north and south.

The "triangular space" lying between the Rio Grande, Gila, and Colorado, is everywhere, so far as known, exceedingly mountainous; the ranges, such as the Mogollon and San Francisco mountains, having a general northwest direction. Too broad an interval exists between the explorations of Lieutenant Whipple and those of Captain Gunnison, to enable us to speak with certainty of their relation to systems already alluded to.

In portions of the mountain region, the waters find no outlet to the sea, but drain into lakes and ponds, or sinks, carrying with them all the impurities of the basins to which the belong, and are there uniformly brackish or very salt. Prominent examples of this are the Salinas Basin, of New Mexico, and the Great Salt Lake Basin in Utah.

From most portions of this interior mountain belt, the waters have been able to force their barriers and escape to the ocean. The valleys thus drained are, those of the southern tributaries of the Upper Missouri, that of the North Fork of the Platte, and its tributary the Sweet Water, between the first and second systems; that of the Great Colorado of the West and its tributaries, between the first and second system; these of the waters of the Bay of San Francisco and of the Klamath river, in the third system; and that of the Columbia river and its tributaries, between the second and third system. Some of these streams, as well as others in the enclosed basins, have in places worn for themselves, through the solid rock, the most stupendous chasms or canyons, often 2,000 feet in vertical height, many of which it is impossible to follow or to cross.

The position of this belt of mountain region, stretching from north to south, gives rise to a peculiarity of climate and soil. Fertility depends principally upon the degree of temperature and amount of moisture, both of which are much affected by increase of elevation; and the latter also depends on the direction of the wind. The upper or return current of the trade wind, flowing backward towards the northeast, gives a prevalence of westerly winds in the north temperate zone, which tends to spread the moisture from the Pacific over the western portion of our continent. These winds, however, ascending the western slope of the mountain ranges, are deprived of their moisture by the diminished temperature of the increased elevation; and hence it is that the plains and valleys on the eastern side of the ridges are generally parched and barren and the mountain system, as a whole, presenting, as it were, a screen against the moisture with which the winds from the west come laden, has for its eastern margin a sterile belt, which probably extends along the whole range, with a width varying from 250 to 300 and 400 miles.

From the foregoing sketch it will be perceived that the lines of exploration must traverse three different divisions or regions of country lying parallel to each other, and extending north and south through the whole of the western possessions of the United States.—The first is that of the country between the Mississippi and the eastern edge of the sterile belt, having a varying width of from 500 to 600 miles. The second is the sterile region varying in width from 200 to 600 miles; and the third, the mountain region, having a breadth of from 500 to 900 miles.

Explorations show that the surface of the first division, with few exceptions, rise in gentle slopes from the Mississippi to its western boundary, at the rate of about six feet to the mile, and that it offers no material obstacle to the construction of a railroad. It is, therefore, west of this that the difficulties are to be overcome.

The concurring testimony of reliable observers had indicated that the second division, or that called the sterile region, was so inferior in vegetation and character of soil, and so deficient in moisture, that it had received, and probably deserved the name of the desert. This opinion is



confirmed by the results of the recent explorations; which prove that the soil of the greater part of this region is, from its constituent parts, necessarily sterile; and that of the remaining part, although well constituted for fertility, is, from the absence of rains at certain seasons, except where capable of irrigation, as uncultivated and unproductive as the other.

This general character of extreme sterility likewise belongs to the country embraced in the mountain region. From the western slopes of the Rocky mountains to the 112th meridian, or the western limit of the basin of the Colorado, the soil generally is of the same formation as that lying east of the mountain crest, mixed, in the latitudes of 35° and 32°, with igneous rocks; and the region being one of great aridity, especially in the summer, the areas of cultivated land are limited. The western slopes of the highest mountain chains and spurs within this region being of a constitution favorable to fertility, and receiving much larger depositions of rain than the plains, have frequently in their small valleys a luxuriant growth of grasses, which sometimes clothes the mountain sides; and where the wash is deposited on mountain, stream, or river bottom, the soil is fertile, and can be cultivated, if the elevations are not too great, and the means of irrigation available. Such mountain valleys and river bottoms exist upon all the routes, and the difference in the areas found in the different latitudes is not sufficiently great to be of any considerable weight in determining the question of choice of route. It is probable that, all the routes are nearly on an equality in this respect.

The cultivated valleys of the Rocky mountains district near the route of the 47th parallel do not probably exceed an area of 1,000 square miles, though there are extensive tracts of fine grazing lands. In this latitude the great sterile basaltic plain of the Columbia, and the barren table-lands, spurs, and mountain masses of the Cascade range principally occupy the space between the Cœur d'Alene mountains and the main chain of the Cascade system. In this area, where the rocks are principally of igneous origin, there are likewise occasional valleys of cultivated soil. The western slopes of the Cascade mountains descend to the borders of Puget Sound.

On the routes of the 41st and 38th parallels, in the region under consideration, the only large body of soil capable of productive cultivation, by the construction of suitable works for irrigation, is of the basin of the Great Salt Lake, estimated to be 1,108 square miles in extent, about one-tenth part of which, being susceptible of cultivation without the construction of irrigating canals, is cultivated by the Mormons. Here also are extensive grazing lands.

The great elevated plain of the Rocky mountains in latitudes 41° and 42°, and that of the latitude 38°, called the San Luis Valley, are covered with wild sage, the narrow border grass found upon the streams being the chief, almost only, production capable of supporting animal life. The slopes of the mountains bounding them are covered with grass.

The plains of the great basin, whose greatest width (500) is in latitude 41°, are with the exception heretofore stated, entirely sterile, and either bare or imperfectly covered with a scattered growth of wild sage. Where a stream or lake is found in this desolate region, its immediate borders generally support a narrow belt of grass and willows; the former being also found on the mountain slopes, where occasionally a scattered growth of stunted cedars is likewise seen. Water is found on the mountain-side. The predominating rocks, from the Wahsatch mountains to the Sierra Nevada, are of igneous origin. In the southern portion of the basin the gigantic rocks are more abundant than the volcanic.

On the routes of the parallels of 35° and 32° the valleys of the Pecos, Rio Grande, Gila, and Colorado of the West, contain the largest areas of fertile soil capable of irrigation and cultivation.—That in New Mexico is estimated at 700 square

miles, exclusive of the regions occupied by Indians, of which 200 square miles are under cultivation. Here the grazing land is of very great extent, the table lands, as well as the mountain sides, being covered with grass. The valley of the Colorado of the West, between its mouth and the 35th parallel, contains 1,600 square miles of fertile soil, which can be irrigated from the river.

The plains south of the Gila in its lower course, and that west of the Colorado, extending to the Coast range, called the Colorado desert, as well as the contiguous portion of the Great Basin, are bare and exceedingly sterile in their aspect, and closely resemble each other. The soil of the Colorado desert, and much of this as well as other parts of the Great Basin, is, however, favorably constituted for fertility, but the absence of the essential, quickening element, water, leaves them utterly unproductive.

West of the Coast, Sierra Nevada, and Cascade mountains the country is better watered than that just considered; and the soil being mostly well constituted for fertility, is productive in proportion to the yearly amount of precipitation and the means of irrigation.

#### Journal of Railroad Law.

LIMITATION OF COMMON CARRIERS' LIABILITIES—BY NOTICE—BY SPECIAL CONTRACT—BILL OF LADING.

Dorr vs. the New Jersey Navigation Co., N. Y. Court of Appeals. Not yet reported.

An important decision has recently been made in the Court of Appeals of this State, concerning the right of common carriers to limit their liability by special agreement. The facts in the case were briefly as follows:

Mr. Samuel T. Dorr, delivered two cases of goods to the New Jersey Navigation Company, to be transported to Boston. They were put on board the Lexington, and were destroyed by fire, on their passage. Upon the delivery of the goods to the company, they gave the following bill of lading.

"New Jersey Steam Navigation Company received of S. & F. Dorr & Co., on board the steamer Lexington, Childs Master, two cases for E. Baker & Co., Boston, marked and numbered as in the margin, to be transported to Stonington, and there to be delivered to railroad agent or assigns, danger of fire, water, breakage, leakage and all other accidents excepted, and no package whatever, if lost, injured or stolen, to be deemed of greater value than two hundred dollars. Freight as is customary with the steamers on this line.

N. B. The company are to be held responsible for ordinary care and diligence only in the transportation of merchandize and other property shipped or put on board the boats of this line.

Dated at New York, Jan. 18, 1840.

Contents unknown, Childs, Master."

The main question in the case was whether this bill of lading limited the liability of the company as common carriers; whether it was possible for a common carrier to limit his common law liability by giving such a bill of lading or receipt. The Supreme Court held that it was not, and gave Mr. Dorr judgment for \$3,247 90, the value of the goods. The company appealed from this decision to the Court of Appeals. The opinion of that court was rendered at the last December term.—We give the substance of it from the manuscript copy.

PARKER, J. The courts of this State have steadily adhered to the common law rule that a common carrier cannot screen himself from liability by notice, whether brought home to the owner or not.

But the question here presented is of a very different character. It is whether it is competent for the carrier and the owner, by an agreement between themselves, to establish conditions of liability different from those cast by law upon a common carrier. I think this question is distinctly presented in this case; for the exceptions to the common law liability being made in the bill of lading and delivered to the agent of the plaintiffs must be deemed to have been agreed upon by the parties.

Upon principle it seems to me, no good reason can be assigned why the parties may not make such a contract as they please. It is not a matter affecting the public interests. No one but the parties can be the losers, and it is only deciding by agreement which shall take the risk of the loss. The law, when there is no special contract, imposes the risk upon the carrier. If the owner chooses to relieve him and assume the risk himself, who else has a right to complain? It is supposed that the extent of the risk will be measured by the amount of compensation, and the latter, it will not be denied, may be regulated by agreement.—The right to agree upon compensation cannot without great inconsistency be separated from the right to define and limit the risk.

Parties to such contract are abundantly competent to contract for themselves. They are among the most shrewd and intelligent business-men in the community, and have no need of a special guardianship for their protection. It is enough that the law declares the liability when the parties have said nothing upon the subject. But if the parties will be better satisfied to deal on different terms, they ought not to be prevented from doing so.

It is true a common carrier exercises a quasi public employment and has public duties to perform; that he cannot reject a customer at pleasure or charge any price that he chooses to demand; and that if he refuses to carry goods according to the course of his employment, without a sufficient excuse, he will be liable to an action; and that he can only demand a reasonable compensation for his risk and services; and that an action will be against him upon a tort arising *ex delicto* for a breach of duty; *Bac. Abr. Carriers B.; 2 Kents Com. 599; Story on Bail. 328; 2 Hd Raym. 917; Shinner, 279; 1 Salkeld, 249; 2 Show K. 332; 8 Mees. & W. 372; 1 Pick. 50; 15 Conn. R. 539; Orange County Bank vs. Brown, 2 Wend. 138.* In such cases there being no special contract, the parties are supposed to have acted with a full knowledge of their legal rights and liabilities, and there may be, perhaps good reason for the stringent rule of law which makes the carrier insurer against all the perils except the act of God and the public enemy. But when a special contract is made, their relations are changed, and the carrier becomes, as to that transaction, an ordinary bailee and private carrier for hire. This neither changes nor interferes with any established rule of law; it only makes a case to be governed by a different rule.

To say the parties have not a right to make their own contract and to limit the precise extent of their own respective risks and liabilities, in a matter in no way affecting the public morals or conflicting with the public interests, would, in my judgment, be an unwarrantable restriction upon

trade and commerce, and a most palpable invasion of personal rights.

Denu, J. I am of opinion,

First, That the bill of lading furnished evidence of a perfect contract between the parties, that the carriers in this case should be responsible for the consequences of an accidental loss by fire.

Second, That they were quite at liberty to make such a contract, there being nothing immoral or contrary to public policy in the stipulation. The maxim *modus et conventio vincunt legem* governs the case.

The judgment of the Supreme Court was therefore reversed, and judgment given for the defendants. This decision is not only important in the principle which it determines, but also because it overrules a decision made by the old Supreme Court, in the case of Gould vs. Hill, (2 Hill 625).

#### Grand Trunk Railroad.

Below we copy from the *State of Maine* an interesting statement in reference to the Grand Trunk Railroad. *Island Pond* is the principal station on the road near the Provincial Boundary, at which the duty-paying merchandize passing over the road is entered. The *State of Maine* says that almost the entire trade with Canada East, between New York and Boston now passes through Portland, and by the Grand Trunk Railway to Montreal and Quebec.

"The amount of revenue business at *Island Pond* is, at this time, twice as great as all that is done in all the other offices in Vermont. We give below a statement recently furnished us by N. P. Bowman, Esq., Deputy Collector, showing the amount of merchandize imported on the Grand Trunk Railway, and entered at the Custom House, *Island Pond*, during the year 1854.

	Dutiable value.	Duties.
Imported on bonds and duties not paid.....	\$581,101 21	\$123,258 14
Imported and duties paid.....	146,416 67	29,314 99
Total amount of imports.....	\$727,517 88	\$152,573 13
Export in bond, same time.....	\$2,020,420 69	
Export not in bond, entered in Canada, C. H.....	199,155 40	
		\$2,219,576 09
Total amount of exports and imports.....		2,947,093 97
No. Barrels of Flour imported in Bond.....		49,455
No. Barrels of Flour imported duties paid.....		13,541

Total number of barrels..... 62,996  
The imports for January, 1855, show an increase of \$18,027 00 over Jan. 1854.

For the past month, February, 1855, the exports to Canada passing through the Custom House at *Island Pond*, were \$128,598.60 against \$54,023.17 for the month of Feb. 1854. The following table shows the comparative business in the month of Feb. in 1854 and 1855, at *Island Pond* Custom House.

	Feb. 1854.	Feb. 1855.	Increase.
Exports.....	\$54,023 17	\$128,598 60	\$74,575 43
	Feb. 1854.	Feb. 1855.	Increase.
Imports.....	\$29,009 95	\$30,878 79	\$868.84

The above figures show a most gratifying state of facts in reference to the direction of trade, and plainly indicate the certainty that a line of steamers between New York and Portland will find a profitable business in this route.

The imports from Canada have been comparatively light, owing to the absence of any demand for flour for export to Europe from this port, and the holding back of lumber, awaiting the final

action on the Reciprocity Treaty. The proclamation of the President, giving effect to the Treaty, was to be issued on Saturday, and this will at once release considerable sums of money paid into the Custom House for duties, which are to be refunded under the recent law of Congress. Over 30,000,000 feet of lumber are already collected on the line of railway between *Island Pond* and Montreal, on the Canadian side of the boundary.

We give below a list of the several mills on the Canada side, and the quantities of lumber preparing for Portland market:

McCaw's Britannia Mills, Action.....	8,000,000
Clark & Co's St. Francis Mills.....	25,000,000
Brooks' Mills at Sherbrook.....	1,000,000
Drummond's " ".....	1,000,000
Holyoke's Mill at Lenoxville.....	1,500,000
Flander's Mill at Waterville.....	1,000,000
Clark's Mills, at Compton.....	500,000
Baldwin Mill at Coaticook.....	500,000
Cleveland & Bryan's Mill at Basford..	1,000,000
Drew's " ".....	500,000
Brooks & Bangs " ".....	500,000
Adams & Thurston's Mill at Boundary.	1,000,000

Total..... 81,500,000

The above figures give the quantities already cut and hauled the present winter, or laying over from last year's stock. This quantity will be increased by further cuttings now in progress, and the above estimate is below the actual quantities. This large lumber business has all sprung up on the line of the railway, within a short space of time, and is all awaiting the remission of duties under the Reciprocity Treaty.

On this side the border the lumbering business has been equally successful the present winter, and the quantity brought to the line of the railway will be still greater than on the Canada side. Ten million feet are already cut in the vicinity of *Island Pond*, and from fifteen to twenty million feet on the Androscoggin, above Berlin Falls, where it is to be sawed and placed on the railway. Much of this lumber is of the very best quality, and Portland will become an important point for the export of lumber the present year.

The new steamer "Ocean Bird" is expected on the route between Portland and New York, at an early day in April. The contractors agree to have her finished and ready for sea by April 1.—We have a drawing of this boat before us, showing a most graceful model, and she is to be fitted for a first-class steamer, and is expected to make a speed equal to 16 1-2 miles per hour. By this route goods from New York to Montreal and Quebec over the line of the Grand Trunk Railway, will ordinarily be laid down in two days time, and passengers will pass in thirty hours between Quebec and New York. The supply of cotton for the mills at Lewistown, Saco, Biddleford and Saccarappa, will take this route, as also that designed for Great Falls, Dover, Manchester, and other manufacturing points on the railways extending westward toward Boston."

#### Columbus, Piqua and Indiana Railroad.

At a meeting of the Board of Directors of the Columbus, Piqua and Indiana Railroad Company, held at their office in Piqua, on Tuesday the 13th inst, the following named gentlemen were elected officers of the said company for the ensuing year viz:

M. G. Mitchell, President.  
Jos. Ridgway, Vice President.  
Wm. Scott, Treasurer.  
Jos. M. Ewing, Secretary.  
A. G. Conover, Chief Engineer.  
The Executive Committee, also appointed at said meeting, consists of the following persons: M. G. Mitchell, J. R. Hilliard, E. Martin, Jos. G. Young and Geo. B. Frye. J. R. Hilliard was re-appointed Superintendent, and R. Walkup General Freight and Ticket Agent.

The company are now placing the iron on the

unfinished portion of their road, and the whole line will soon be in operation.

#### Wabash and Erie Canal.

We give below the following extract from the report of the Board of Trustees of this Canal, showing the operations for the past year.

*Statement of the Receipts and Disbursements by the Board of Trustees of the Wabash and Erie Canal from Dec. 1, 1853, to Dec. 1, 1854.*

RECEIPTS.	
Balance on hand December 1, 1853..	\$223,168 13
Tolls and Water Rents...	\$180,535 65
Lands east and west of Tippecanoe.....	50,779 83
Lands in the Vincennes District.....	234,631 73
Interest on Deposits in New York.....	2,050 00
Total.....	\$691,215 34
DISBURSEMENTS.	
Expenses, Repairs, &c...\$138,874 85	
Construction.....	64,566 72
Expense of Land Offices.	5,210 29
Interest on advance of \$800,000, and Exch'ge.	52,461 83
Installment of 20 per ct. on Loan of \$800,000 by subscribing bondholders, (on account).....	150,400 00
	\$411,624 89

Balance on hand December 1, 1854\$279,590 65

The Canal was opened for navigation on the 28th March, and closed on the 4th December.—The number of boats navigating the Canal during the season was 300, varying little from the number in use the year before.

Tolls have been received during the year ending 1st Dec. to the amount of.....\$180,535 33  
In 1853, the tolls were..... 181,206 98

Decrease..... \$671 65

The total tonnage of the Canal has been greater than that of last year.

The serious interruptions caused by the destruction of the Sugar Creek Aqueduct, and other breaks, the results of the great rains in the month of May, have had the effect to lessen income, at the same time that they have added largely to the cost of repairs. Great difficulty has been experienced, also, from the want of water on the levels below La Fayette the past season. The Trustees complain of much damage to the Canal by cutting reservoirs, buring waste-weirs, dams, &c.

Notwithstanding the temporary inconvenience from low water on some of the levels, the Canal has still maintained its position as one of the principal channels in the West for transportation of produce.

During the year, the export of corn by the Canal, north of and including the Terre Haute office, reached the very large amount of 3,546,550 bushels. Last year's shipment was 2,166,003 bushels. The shipment of wheat has been but 412,800 bushels, against 1,335,770 bushels last year. Of pork, bacon and lard, the total cleared this year from Toledo, from the same portion of the Wabash Valley, has been 24,198,940 pounds, against 27,363,461 pounds in 1853.

The books of the Collector at Fort Wayne show a total import, under the head of merchandise, of 9,432,671 pounds. Last year it was 11,423,667 pounds. Of salt, both coarse and fine, 77,712 barrels have been received, against 59,609 last year. Of bar iron, 38,119,841 pounds have this year been shipped through the Canal from Toledo—the greater part being rails for the construction of railroads. In 1853 this item amounted to 32,940,038 pounds.

This statement of leading articles transported, shows a larger tonnage for the Canal than in any



preceeding year. That the aggregate of tolls is not correspondingly greater, is accounted for, by the fact that the two largest items, corn and iron, of which the increase of tonnage is chiefly made up pay very low rates of toll, while of merchandise, paying the highest toll, the tonnage is less than last year.

South of Terre Haute, the navigation, since the supply of water by the fall rains, has been good through to Evansville, and is yet open. The consolidation of the embankments on the more difficult portions of the work, and the general condition of the Canal, are such as to justify full confidence in its future permanence and usefulness if protected from lawless outrages. It remains to be seen how far the railway just opened between Terre Haute and Evansville will divert from the Canal its anticipated business.

On the 1st of November last, the Trustees paid an installment of 20 per cent. on the advance of \$800,000 by the subscribing bondholders. This loan, although nominally \$800,000, amounted to the actual sum of \$815,900—20 per cent. paid, amounting to \$163,180, leaving a balance due of \$652,720.

In the case submitted to the Supreme Court, relating to the payment of interest on the Certificates of Canal Stock issued for original Wabash and Erie Canal Bonds, the Trustees were, at their recent session, furnished with the decision of the Court, by which they are required, out of the net earnings of that portion of the canal between La Fayette, inclusive, and the State Line to pay the interest on Such Certificates. These Certificates are readily identified and distinguished from all other certificates of Indiana Canal Stocks, as it is stated on their face that they are issued "on account of Wabash and Erie Canal Bonds." From the manner in which the tolls are collected in the through-business of the Canal, a careful and very laborious analysis must be made after the close of each year's business, based upon the statistical reports of the Collector's offices in order to ascertain the revenues properly belonging to that division of the Canal. Such an analysis having been made for the year 1853, and the result showing sufficient net revenue, the Trustees have ordered that one year's interest, from 1st January, 1853, to 1st January, 1854, be paid to holders of Certificates above named, at the office of the Trustees, in the City of New York, on the 1st day of May next.

The total value of the unsold lands, and the indebtedness for lands sold is as follows:

In Vincennes Land District.....	\$583,883 54
East of Tippecanoe.....	46,117 74
West of Tippecanoe.....	88,666 38

Total.....\$718,667 61

Respectfully, CHARLES BUTLER,  
Pres't Board of Trustees W. and E. Canal.

#### Earnings of Railroads.

The following are the February receipts of our Railroads as far as published:

	1855.	1854.
Baltimore and Ohio, main stem.....	\$185,441	\$279,857
Baltimore and Ohio, Washington Branch.....	81,461	25,315
Chicago and Mississippi.....	39,751	
Chicago and Rock Island.....	61,116	50,285
Cleveland and Toledo.....	52,000	45,172
Erie.....	342,525	357,629
Harlem.....	73,896	63,457
Hudson.....	174,905	160,620
Indianapolis and Cincinnati.....	24,202	21,598
Macon and Western.....	26,095	28,672
Michigan Central.....	93,266	90,398
Mich. South. and Northern Indiana.....	106,068	91,890
New York Central.....	335,126	315,113
Pennsylvania.....	191,014	301,765
Stonington.....	15,771	18,141
Norwich.....	16,639	22,004

**HUDSON RIVER RAILROAD.**  
The receipts of the Hudson River Railroad for Feb'y were.....\$174,904 72  
Same month, 1854.....160,620 47

Increase.....\$14,284 25

#### Yield of the California and Australia.

The following article on the gold-yield of California and Australia, is from *The San Francisco Herald* of the 13th ult.:

"The total amount of gold shipped from Melbourne—the depot of the Australian gold-fields—during the ten months of 1854 ending Nov. 4, was 1,736,217 ounces; which, at 80 s. per ounce, would be worth £6,944,868, or \$33,682,609. During the same time, were shipped from Sydney—the depot of the New South Wales mines—210,494 ounces—worth, at 80 s. an ounce, £841,976, or \$4,083,583.

#### RECAPITULATION.

From Melbourne, ten months.....\$33,682,609  
From Sydney, ten months.....4,083,583

Total from Australia.....\$37,776,192  
Total from California, same time.....44,899,125

Excess in favor of California....\$7,122,933

To make a comparison between the production of gold by the rival gold fields during the entire year, if we estimate the yield of the Australian mines for the months of November and December—from which we have, as yet, received no returns—at the average of the preceding ten months, we shall have:

Product of Australian mines, ten months.....\$37,776,192  
Product for November and December.....7,555,238

Total for the year 1854.....\$45,331,430  
Shipments from California in 1854... 51,506,132

Excess in favor of California....\$6,164,702

Taking the shipments of gold as the measure of production, it will be seen from the above that the total productions of gold during the year 1854, by California and Australia—the two great gold-producing countries of the world—were \$96,837,562.

In all the gold districts there has been a falling off in the productions during the year 1854, as compared with 1853.

In Australia the record stands as follows:

	1853.	1854.
First 9 mos.	First 9 mos.	
Shipments of gold from Melbourne.....	ozs. 1,831,468	1,653,999
Shipments from Sydney.....	ozs. 421,953	200,323
Total from Australia.....	ozs. 2,253,421	1,854,322
Deduct.....	ozs. 1,854,322	

Falling off in 9 months of

1854.....ozs. 399,099

At this rate the total falling off during the year 1854 was 532,132 ounces, which, at 80 s. to the ounce, would amount to—

£2,128,528, or \$10,323,360  
Actual falling off in California..... 8,400,824

Total in California and Australia...\$18,734,184

The Australian papers account for the decrease in the product of their mines in two ways: 1. A large proportion of the digging population do not now confine themselves to the search for gold.—Large numbers have built houses, fenced and cultivated land, and have settled down in numerous departments of regular industry. 2. No less than seven new gold fields have been discovered, and a great deal of time has been lost in the numerous "rushes" to test their richness. Similar causes have operated in California.

In making the comparison between the products of the Australian and California mines, it must be borne in mind that the population of the colony of Victoria alone is fully equal to that of

all California. The Australians have, then, the advantage of us in the number of diggers engaged in the New South Wales mines. From a careful review of the whole field, we may comfort ourselves with the deduction that if California sometimes yields her treasures tardily, she is by all odds the richest gold country now known, or heretofore known, or ever likely to be known.

#### Report of the Pittsburg, Maysville, and Cincinnati Railroad Company.

To the Stockholders of the Pittsburg, Maysville, and Cincinnati Railroad Company.

The directors are able to report to the Stockholders, that active operations on the line of the company's road have been steadily prosecuted since their last annual meeting.

The estimates of work done have varied from something less than ten thousand to a little over thirty-five thousand dollars per month.

Twenty miles of roadway between Cumberland and the National road, are almost ready for the superstructure.

The heaviest sections between Cumberland and M'Connellsville, have been prosecuted with considerable force, several of which sections are nearly graded.

The total means of the company applicable to the construction of forty-nine miles of road between M'Connellsville and Antrim, are,

Stock subscribed to the company.....\$479,850  
Central Ohio Railroad Stocks.....100,000

Making a total.....\$579,850

The expenditures of the company to this date, are as follows:

For grading, &c.....	\$225,000
Engineering.....	36,150
All other expenditures including right of way and fencing.....	40,100
	301,250

Leaving.....\$278,600

A balance of Central Ohio Railroad Stock, and uncollected subscriptions to the amount of two hundred and seventy-eight thousand, six hundred dollars, under the control of the board of directors towards the future prosecution of the works of the company.

In the opinion of the board of directors, nothing has occurred since the last annual meeting of the stockholders to discourage the vigorous prosecution of the enterprise, or to lessen the value of the improvement when completed.

The board feel confident that the prompt payment of the uncollected stock subscriptions will secure the steady and vigorous prosecution of the work the coming season.

T. W. PEACOCK, President.  
M'Connellsville, March 6th, 1855.

#### Locomotive Building in Paterson, N. J.

We are sorry to learn that at this place, for some months, there has been a great decrease of business in its great staple production—locomotive engines. Messrs. Rogers, Ketchum, and Grosvenor, who formerly turned out at the rate of over 100 engines per annum, have reduced their production to about only half that quantity. Messrs. Wm. Swinburne and Danforth, Cook, & Co. have been doing very little for some time; but expect to commence operations shortly. The New Jersey Locomotive and Machine Co., have kept nearly their former force constantly at work during the winter.

We understand that sufficient business offered to all the builders in Paterson; but the condition of the railroad interest was so gloomy during the fall and winter that they dreaded entering into contracts, except for cash, which was, in the circumstances of the case, next to impossible. It is needless to refer to the character of the machin-

ery built in Paterson. For beauty, strength, durability, and the adoption of all improvements, the Paterson engines have earned a reputation unsurpassed, if equalled, in the Union. They are found from Canada to Cuba; and from the seaboard to the Missouri. We hope soon to find the establishments of this young and busy city at it "hammer and tongs" as brisk as in by-gone years.

#### Toledo and Illinois and Lake Erie, Wabash, and St. Louis Railroad.

The Toledo and Illinois, and Lake Erie, Wabash and St. Louis Railroad Companies offer for sale \$800,000 of their first mortgage convertible bonds, being the balance of that issue remaining unsold. These roads extend from Toledo, on Lake Erie, following the Maumee and Wabash Rivers, to the State line of Illinois, from which point communication will be had with St. Louis by the Terre Haute and Alton Road, with Springfield, the capital of the State, and with the Mississippi River by the Great Western Railroad. These roads are in rapid progress of completion. The roads under this mortgage are 243 miles in length and will cost, when completed, \$8,000,000. There have been already \$5,000,000 expended. The companies have no floating debt, and have means on hand to complete 120 miles of road by June next. The first mortgage is for \$3,400,000. The \$5,000,000 expended have been raised from stock \$2,600,000 of these bonds, and \$1,000,000 of second mortgage bonds. The treasury contains \$800,000 first mortgage and \$1,000,000 second mortgage bonds. It is believed this road, when completed, will form the shortest line between St. Louis and Lake Erie, and will command the through travel. It will also enjoy a large local business, running as it does through one of the most fertile valleys of the west, and passing through all the county towns on the route. A party who has resided 15 years in the valley makes the following estimate of the business when the connection with St. Louis is completed:

Two passenger trains each way daily, 100 passengers each, 8 cents per mile.....	\$2,916
Two freight trains daily going East, 20 cars each.....	2,000
Return earnings.....	500
Total.....	5,416
Equal (for the year) to.....	\$1,695,208
Deduct expenses, 50 per ct.....	847,604
Balance.....	\$847,604
Interest—7 per cent. on debt, (\$5,400,000).....	\$378,000
10 per cent dividend on stock (\$2,800,000).....	280,000
	\$658,000
Surplus.....	\$189,604

#### Columbia and Octorara Railroad.

The surveys upon the Columbia and Octorara Railroad are to be completed forthwith, with a view to placing the work under contract. The road commences at Columbia, and will be located on the east bank of the Susquehanna to Safe Harbor, from thence by the best route, passing near the Unicorn tavern in Drumore township, and Oxford in Chester county, to a point on the Pennsylvania and Delaware line, northwest from New Castle. At this point the road will connect with a road terminating at or near New Castle. The entire length of road connecting Columbia with the Delaware will be about sixty miles.

#### New Albany and Salem Railroad.

Mr. Brooks the president of this company, is in New York, issuing one million of dollars of seven per cent. bonds, and, notwithstanding the stringency of the money market, has sold an amount sufficient to secure the relaying of that portion of

the road which is now laid with flat rail (some 20 miles.) Subscriptions will be opened along the line of the road, and stockholders invited to take a part of these bonds. Twenty-five thousand dollars was subscribed in this city on last Saturday. The subscribers pay one-half cash, in monthly instalments, and the other half in stock of the company. If Mr. Brooks succeeds in effecting a sale of these bonds, he will at once procure additional rolling machinery, and stock the road in the best possible manner.—*New Albany Tribune.*

#### IMPORTANT TO RAILROAD COMPANIES. WILLIAMS' Patent Head Supporter, FOR REST AND SLEEP IN RAILROAD CARS.



THE above cut represents the supporter in two positions—when swung up and attached to the panel and when suspended over the seat for use.

In offering to railroads this valuable invention I would state some of the advantages therewith

- 1st, They take up less room in the cars than any other form.
- 2nd, They obstruct ventilation the least.
- 3rd, They can be put almost entirely out of the way when not wanted.
- 4th, They can be on springs and thus easier to the head.
- 5th, They are more economical in keeping in repair and more durable.
- 6th, The first cost is less, and
- 7th, They can be preserved cleaner than in any other way.

For the right to manufacture and use apply to  
J. N. WILLIAMS, Dubuque, Iowa,  
6m13 or to CLARK & JESUP, Agents, 70 Beaver st., N.Y.

#### For Sale.

BY the Baltimore and Ohio Railroad Company, 24 crate cars adapted to railroad purpose, which will be sold at a reasonable price. For further information, apply to  
SAMUEL J. HAYES,  
M. of M., Baltimore and Ohio R. R. Co.,  
or, BRIDGES & BRO.,  
64 Courtland st., New York.

WANTED, STUDENTS IN ENGINEERING, SURVEYING and DRAUGHTING.—Four or five active young men, of intelligence, clever habits, and good education, who may desire to perfect a course of studies and gain a knowledge of the above pursuits, may find an instructor and employer by addressing, in their own hand, with references, Box 177, Cumberland, Maryland.

Terms: First year, tuition in the office and field, use of instruments and scientific library, with \$50 pay for services; second year, advance in pay. 6.3ms

#### 4,000 Tons Railroad Iron.

WANTED.—The undersigned invites proposals for the supply of about 4,000 tons of T or U pattern railroad iron weighing not less than sixty lbs to the yard, for completing "the Buffalo, Corning and New York Railroad" from Batavia to Buffalo. Proposals desired immediately for delivery in June next at New York, Corning or Buffalo as may best suit the convenience of parties proposing. CHAS. G. MILLER,  
Pres't B. O. & N. Y. R. R. Co.  
Buffalo, Feb'y 15th, 1855. 8 St

#### Notice to Contractors.

OFFICE OF THE ALA. & FLA. R. R. CO. OF FLORIDA.  
Pensacola, Florida, Feb'y 21st, 1855.

PROPOSALS for Grading, Masonry and Bridging of 46 miles of this road will be received at the office of the Company until 1 o'clock P. M. on the 1st day of May next.

Maps, profiles, plans and specifications of the work will be ready for inspection on and after the 1st of March.

The Alabama and Florida Railroad is designed to extend from the city and harbor of Pensacola to the city of Montgomery, in Alabama. Proposals are now invited for the portion of this road which lies in the State of Florida.

Proposals will be received for the work in sections of ten miles each, or for the whole road.—The work to be completed within 18 months from the date of the contract.

The terms of payment will be two-thirds cash, and one-third in Bonds of the City of Pensacola, or Stock of the Company, and proposals will be received for a larger proportion of Bonds or Stock.

The work is generally of a light order, though with some heavy earth cutting and several pile bridges. Every facility exists for prosecuting the work advantageously at all seasons of the year.—The country is elevated, rolling, well wooded and watered and healthy.

Any further information desired by persons wishing to offer proposals for the work will be furnished at the office, or may be had by addressing the President of the Company prior to the day of letting.

By order of the Board of Directors,  
4t13 WALKER ANDERSON, President.

#### To Contractors.

SEALED PROPOSAL will be received at the office of the BARCLAY R. R. & COAL COMPANY in Towanda, Bradford County, Pa., until Saturday, the 14th of April next, for the graduation, masonry, bridging, cross-ties, &c., of about 16 miles of railroad, extending from Towanda to the mines.

Plans, specifications and profiles will be exhibited for three days previous to the day of letting.

The work will be allotted either in separate sections of about one mile each, or the whole in a single contract, as shall be determined after the bids are opened. THOS. T. WIEMAN,  
March 24th, 1855. 2t13 Eng'r.

THE undersigned propose to change the location of their business, and invite the attention of those interests to which it may be an object of importance to induce the establishment of a manufactory of locomotive engines and cars on an extensive scale. J. PERKINS.  
ALEXANDRIA, March 20th, 1855. R. C. SMITH. 12.4t

Benjamin Watkins,  
Architect, Engineer, and Suspension and Railroad Bridge  
Builder, Port Gibson, Miss. 1y13

CHILLED WHEELS,  
FOR  
RAILROAD CARS & LOCOMOTIVE ENGINES.

Bush & Lobdell,  
WILMINGTON, DELAWARE.

ARE prepared to execute promptly orders to any extent, for their celebrated Wheels, (with or without axles,) the character of which is well known.

#### Schenectady Locomotive Works,

SCHENECTADY, N. Y.

THESE Works having been enlarged and improved, and having made extensive additions to their tools and machinery, are prepared to receive and execute orders for

LOCOMOTIVE ENGINES AND TENDERS, and RAILROAD MACHINERY generally, with the utmost promptness and dispatch and in the best style.

The above works being located on the New York Central Railroad near the centre of the State, possess superior facilities for forwarding their work to any part of the country without delay. JOHN ELLIS, Agent.  
March 20th, 1855. WALTER McQUEEN, Sup't. 12.6m



PLATT 28 STREET.

# LAP-WELDED IRON BOILER TUBES, PROSSER'S PATENTS.

Tube Expanders, Four-Cutter  
and Chambering Drills,  
Countersinks, Cutting Bars and  
Pall-Lever Wrenches.

WHALEBONE AND STEEL WIRE BRUSHES.

**ARTESIAN WELL TUBES**  
Screwed flush inside and outside.

**FREE-JOINT TUBES**  
For core-bars, awnings, railings, leaders, &c.

## PATENTED

**Hollow-Slab Water-Tuyeres**  
for Smiths' use, and  
**WATER BACKS**

for Kitchen Ranges, and the backs of fire places  
generally, where a constant supply of hot water is  
required. Also for water and Steam-tables, for  
Hotels and Restaurants.

## Hot Water Apparatus

for warming air, boiling water and heating ovens.

## Annular

## SURFACE CONDENSERS,

more especially applicable for Steamers' and other  
boilers, whether high or low pressure, where the  
only water available is Sea, Mississippi, muddy and  
other waters unsuitable for raising steam from, on  
account of their injurious effects upon the Boilers,  
or for other Condensers, on account of the liability  
to choke them up.

## KRUPP'S

## CELEBRATED CAST-STEEL

for Platers, Mint laminating, and other ROLLERS  
of any dimensions (not exceeding 18 inches in  
diameter by 6 feet in length).

## CAST-STEEL CANNON

of any calibre.

## Patented

## CAST-STEEL TIRES

for Railway Wheels. Railway Axles and Springs.

## SHAFTS

for Steamers and other purposes, not exceeding  
six tons in weight, warranted for Ten years by

**Fried. Krupp,**

Essen Rhenish Prussia,

Represented solely in the United States by

**THOMAS PROSSER & SON,**

28 Platt Street,

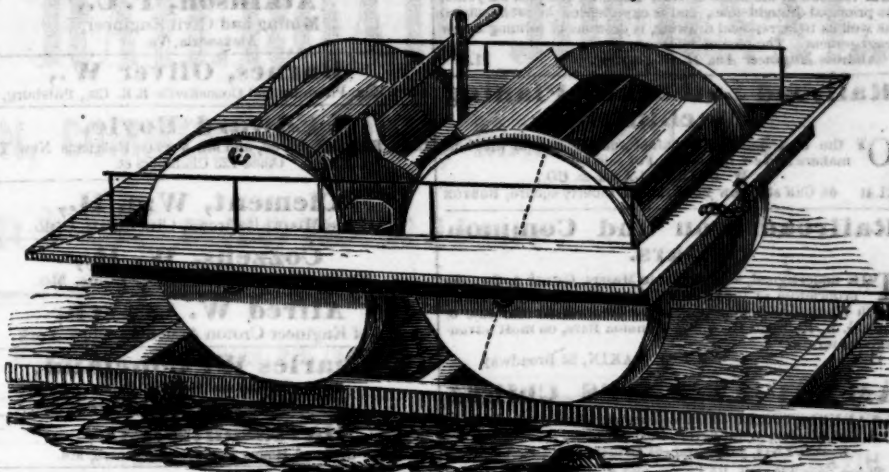
New York.

## MYERS' Patent Cylinder Coal and Grain Car.

For the purchase of rights address

C. TIERS MYERS, Philadelphia, Pa.

6m12



## To Land Claimants in Texas.

If you have any business in relation to Lands in Texas address  
W. B. STOUT, Clarksville, Red River County, Texas, and it  
will be attended to promptly. 1.1y

## Boiler and Tank Rivets, Nuts and Washers; All Sizes of Bolts and Bolt Ends

for Sale by  
**BRIDGES & BROTHER,**  
64 Courtland st., N Y

## Lithography.

**G. WEISSENBOERN**, Civil Engineer and draughtsman 131  
Fulton St. up stairs; also gives his attention to the en-  
graving of maps, and machinery on stone. Locomotives are  
neatly lithographed at this establishment on the most reasona-  
ble terms.—Orders are solicited. 50.1f

## American Railroad Iron.

**4,000** TONS T pattern about 60 lbs. per linear yard,  
now manufactured and ready for delivery at  
Pittsburgh on the Ohio river. Apply to  
**THEODORE DEHON**, 10 Wall st., near Broadway.  
New York, March 12th, 1855. 11.6f

## AUBURN STEAM FORGE,

AUBURN, N. Y.—**CHAS. RICHARDSON**, Proprietor.  
Manufactures

## Car and Locomotive Axles,

STEAMBOAT AND MILL SHAFTS,  
CRANKS, CRANK PINS, CONNECTING RODS,  
Wagon Axles, Pick Axes, Crow Bars, &c., &c.,  
of the best assorted Scrap Iron, and WARRANTED. [10.1f

## Notice to Contractors.

American and Foreign  
**EMIGRANT PROTECTIVE AND EMPLOYMENT SOCIETY,**  
27 Greenwich st., Feb. 14th, 1855.

CONTRACTORS on Public Works and on Railroads are re-  
spectfully invited to make application at the Society's Office  
for Laborers for their Works. In doing so, we believe they  
will promote their own advantage, as well as advance the in-  
terests of the Society. Arrangements have been made in  
Europe, by which Emigrants of the best character will be  
consigned to the Society's care; and the manner in which bu-  
siness is transacted at their Office, guarding as it does the in-  
terests of the employer as well as promoting the good of emi-  
grants will be highly satisfactory. The necessity of men of  
character standing between the employer and employee, is  
sufficiently felt; and this object will be secured by engaging  
the services of the Society in procuring Laborers.

Application in person to the Superintendent, Mr. J. SNEYMOUR,  
27 Greenwich st., or by letter, post paid, to the General Agent,  
Rev. D. R. THOMASON, Society Rooms, 18 Astor Place, will  
have prompt attention. 10.1f

## REMOVAL.

**CLARK & JESUP** have removed their place of  
business to No. 70 Beaver st. 9.4f

## British Advertising Agency.

ADVERTISEMENTS and Communications received for  
all the London, Provincial and British Colonial News-  
papers, by the undersigned at their Office, 11 Clements Lane,  
Lombard st., London. **ALGAR & STREET.**  
English Newspapers supplied.

## New York and Erie R. R.

On and after Tuesday, March 13th, and until further notice  
**PASSENGER TRAINS**  
will leave Pier foot of Duane street, as follows, viz:—

**DUNKIRK EXPRESS**, at 7 a.m. for Dunkirk.  
MAIL, at 8 1/4 a.m. for Dunkirk and Buffalo, and intermediate  
stations.—Passengers by this train will remain over night at  
any Station between Binghamton and Corning, and proceed the  
next morning.

**ROCKLAND PASSENGER**, at 3 p.m., (from foot of Chambers  
st.) via Piermont for Suffern's and intermediate stations.  
**WAY PASSENGER**, at 4 p.m., for Newburgh and Otisville,  
and intermediate stations.

**NIGHT EXPRESS**, at 5 p.m. for Dunkirk and Buffalo.  
**EMIGRANT**, at 5 1/4 p.m., for Dunkirk and Buffalo and inter-  
mediate stations.

On Sundays only one Express Train—at 5 p.m.  
These Express Trains connect at Elmira, with the Elmira &  
Niagara Falls Railroad, for Niagara Falls, at Buffalo and Dun-  
kirk with the Lake Shore Railroad for Cleveland, Cincinnati,  
Toledo, Detroit, Chicago, etc.  
11.1f **D. C. MCCALLUM**, General Supt.

## For Sale.

**THE ROSSIE FURNACE AND FOUNDRY, &c., St. Law-**  
rence County, N. Y.—This well known establishment, hav-  
ing attached to it a large and complete Casting House and Ma-  
chine Shop, with ample accommodations for workmen, and ev-  
ery convenience necessary to the prosecution of an extensive  
business, together with valuable Iron Mines and Mining Rights,  
also Timber Lands, is offered for sale by the proprietor, who re-  
tires from the business. The capacity of the Rossie Furnace  
for making iron, is believed to be unsurpassed by any charcoal  
Furnace in the country, having repeatedly run up to fourteen  
tons per day, with 55 to 60 per cent. yield from ore—specular  
red oxides—coal, per ton, 100 bushels. The same has been in  
uninterrupted operation for over twenty years, and the reputa-  
tion of its iron is established throughout the West. The location  
of these works is in the village and town of Rossie, county of St.  
Lawrence, N. Y., six miles from the River St. Lawrence, and  
connected therewith by a plank road. Their cost, apart from  
premises and water power, has involved an expenditure of over  
\$100,000, and their present efficiency, in every respect, is con-  
sidered unexceptionable. For further information apply to D.  
W. Baldwin, Agent, at the works, or to the undersigned.  
**G. PARISH.**  
Ogdensburg, N. Y., April, 1853. 5.2ma

## Philadelphia, Wilmington & Baltimore Railroad.

## UNITED STATES MAIL ROUTE TO THE SOUTH AND WEST.

Trains will leave the Southern and Western Station, corner of  
Broad and Prime streets, Philadelphia, at 8 30 am. 12 45, 3 and  
11 pm.

### FARE BY THROUGH TICKETS TO THE SOUTH.

From New York to Wilmington	\$15 50
do do Norfolk	8 50
From Philadelphia to Wilmington	14 00
do do Norfolk	6 50
do do Petersburg	9 00
do do Richmond	8 00

### FARE BY THROUGH TICKETS TO THE WEST.

From New York to Cincinnati	\$13 50
do do Louisville	14 50
From Philadelphia to Cincinnati	11 00
do do Louisville	12 00
From New York to Indianapolis	10 00

An extra charge will be made for meals and state rooms on  
oqd the boat. **S. J. SPAFFORD**  
Genl Sup

**To Engineers and Architects.**

**A**N ENGINEER who has been engaged upon a prominent railroad in the State of New York, for the past six years, as principal draughtsman, and is experienced in architectural as well as topographical drawing, is desirous of forming a new engagement. The best of reference given.

Address Engineer Am. R. R. Journal.

11.8t

**Railroad Lathes and Planing Machines.**

**O**F the best quality, manufactured by one of the best makers in New England. For sale by

W. BAILEY LANG & CO.,  
11.4t 54 Cliff st., New York, and 9 Liberty square, BOSTON

**Railroad Iron and Common Bars.**

**T**HE undersigned, sole agents to Messrs. GUEST & Co., the proprietors of the Downish Iron Works, near Cardiff, South Wales, are duly authorized to contract for the sale of their G. L. Railroad Iron, and Common Bars, on most advantageous terms.

11.4t R. & J. MAKIN, 24 Broadway.

**AMERICAN TIRES Chilled**

**M**ANUFACTURED at the celebrated wheel works of Bush and Lobdell, Wilmington, Del. For sale by

L. B. TYNG, proprietor, 64 Courtland st., N. Y.

Those tires TRACK BETTER, and are more durable than the best English make, and cost LESS than ONE-FOURTH as much. They are the BEST TIRES for a portion of the engines of EVERY ROAD, and require only a trial to be used to a greater or less extent by all. They are especially recommended for engines having SIX or EIGHT DRIVING WHEELS, and for "Pony" engines.

These tires are now used on many of the heaviest class freight engines upon roads in the Northern, Middle and Western States, and are the ONLY tires used upon the Baltimore and Ohio and Baltimore and Washington roads, on which are more than TWO HUNDRED engines.

Reference may be had to the Superintendents and Masters of Machinery of the following roads—

Vermont Central,	Orange and Alexandria, Va.,
Boston and Lowell,	Manassas Gap, Va.,
Eastern of Mass.,	Little Miami, Ohio,
New York and Erie,	Xenia and Columbus, Ohio,
Buffalo and Erie,	Central Ohio,
Pennsylvania Central,	Cincinnati, Ham. & Dayton, Ohio,
Baltimore and Ohio,	Mad River and Lake Erie, "

Also for sale by

M. McDOWELL, Agent, 28 Congress st., Cincinnati.  
Virginia Locomotive Works, Agent, Alexandria, Va.

**Notice to Contractors.**

**I**MPROVEMENT OF THE DES MOINES RIVER NAVIGATION—OFFICE OF THE DES MOINES NAVIGATION AND RAILROAD COMPANY, 18 William street, New York, Feb. 24, 1866.

**S**EALD PROPOSALS will be received at the office of the Chief Engineer of this Company, at Keokuk, Iowa, until the first day of May next, at 12 o'clock in the forenoon, for the construction of the LOCKS, DAMS, and works connected therewith, between St. Francisville and Ottumwa, a distance of 78 miles.

This work consists of seven new locks and dams, and the enlargement and completion of five other locks and dams. The locks are to be 200 feet long and 45 feet wide, in the chamber, and to be built of hydraulic masonry, with cut stone face, and massive coursed rubble backing.

The dams will average about 700 feet in length, and 11 feet lift, and will be composed of timber cribs filled with stone.

The locks and dams will rest on a rock foundation.

The work will be ready for examination by the 10th day of April next, at which time plans and specifications will be exhibited, and blank proposals will be furnished at the offices in New York and Keokuk.

Monthly payments will be made to the contractors, in cash, to within fifteen per cent of the relative estimates of the Engineer.

The company reserve the right to reject any proposal which is not satisfactory.

Any further information that may be desired, may be obtained of the President and Chief Engineer, and at the offices in New York and Keokuk.

The work between St. Francisville and the mouth of the river, near Keokuk, will be offered for letting at an early day.

ORVILLE CLARK, President.

E. R. BLACKWELL,

Chief Engineer.

**ENGINEERS.**

**Atkinson, T. C.,**  
Mining and Civil Engineer,  
Alexandria, Va.

**Barnes, Oliver W.,**  
Chief Eng. Pittsburg and Connellsville R.R. Co., Pittsburg, Pa.

**Edward Boyle,**  
Chief Engineer, 2d, 3d, and 9th Avenue Railroads New York  
Office 123 Chambers st.

**Clement, Wm. H.,**  
Little Miami Railroad, Cincinnati, Ohio.

**Cozzens, W. H.,**  
Engineer and Surveyor, St. Louis, Mo.

**Alfred W. Craven,**  
Chief Engineer Croton Aqueduct, New York.

**Charles W. Copeland,**  
Steam Marine and Railway Engineer,  
64 Broadway, New York.

**Davidson, M. O.,**  
Civil and Mining Engineer, Baltimore, Md.

**C. Floyd-Jones.,**  
Division Engineer 3d and 12th Divisions.  
ILLINOIS CENTRAL RAILROAD.  
Vandalia, Ill.

**Gay, Edward F.,**  
Civil Engineer, Philadelphia, Pa.

**Gilbert, Wm. B.,**  
Syracuse and Binghamton Railroad, Syracuse, N. Y.

**Gzowski, Mr.,**  
St. Lawrence and Atlantic Railroad, Toronto, Canada.

**Grant, James H.,**  
New Orleans and Nashville R. R., Natchez, Tenn.

**Holcomb, F. P.**  
Ohio Eng. Augusta and Waynesboro, and Savannah and P. nash-  
cola Railroads, Marietta, Ga.

**S. W. Hill,**  
Mining Engineer and Surveyor, Eagle River,  
Lake Superior.

**Huger, T. P.,**  
Northeastern Railroad, Charleston, S. C.

**D. Mitchell, Jr.,**  
Chief Engineer Pittsburgh and Steubenville, and Chartiers Valley  
Railroads, Pittsburg, Pa.

**Samuel McElroy,**  
Assistant Engineer, New York Navy Yard.

**Mills, John B., Civil Engineer,**  
Sackets Harbor and Saratoga R. R., 24 William St., N. Y.

**Morris, Ellwood,**  
Engineer and Agent DAUPHIN & SUSQUEHANNA CO.,  
Cold Spring, Lebanon Co., Pennsylvania.

**Septimus Norris,**  
Civil and Mechanical Engineer, Philadelphia.

**Saml. & G. H. Nott,**  
Civil Engineers, No. 6 Niles' Building, Change Avenue, Boston.

**Osborne, Richard B.,**  
Civil Engineer, Office 78 South 4th st., Philadelphia.

**Prichard, M. B.,**  
East Tenn. and Georgia Railroad, Knoxville, Tenn.

**W. Milnor Roberts,**  
Chief Engineer Alleghany Valley Railroad, Pittsburg, Pa.

**Shanly, Walter,**  
Chief Engineer Bytown and Prescott Railway,  
Prescott, Canada.

**Roberts, Solomon W.,**  
Ohio and Pennsylvania Railroad, Pittsburg, Pa.

**Sanford, C. O.,**  
South Side Railroad, Virginia.

**Straughan, J. R.,**  
Ohio and Indiana Railroad, Bucyrus, Ohio.

**Steele, J. Dutton,**  
Pottstown, Pa.

**Charles B. Stuart,**  
Civil Engineer, New York.

**Edward W. Serrell,**  
Civil Engineer, 157 Broadway, New York.

**Trautwine, John C.,**  
Civil Engineer and Architect, Philadelphia.

**Troost, Lewis,**  
Alabama and Tennessee Railroad, Selma, Ala.

**A. B. Warford,**  
Chief Engineer, Susquehanna Railroad, Harrisbu Pa.

**Whipple, S.,**  
Civil Engineer and Bridge Builder, Albany, N. Y.

**Wm. J. Young**  
HAS removed his Engineering and Surveying Instrument Man-  
ufactory to No. 53, North Seventh Street, Philadelphia.

**BUSINESS CARDS.****Railroad Instruments.**

**T**HEODOLITES, TRANSIT COMPASSES AND LEVELS on a new principle, with Fraunhofer's Munich Glasses, Surveyors' Compasses, Barometers, Chains, Drawing Instruments, etc., all of the best quality and workmanship, for sale at unusually low prices by  
E. & G. W. BLUNT,  
New York, Dec. 1, 1861. No. 179 Water street.

**James Herron, Civil Engineer,**  
OF THE UNITED STATES NAVY YARD,  
PENSACOLA, FLORIDA.,  
PATENTEE OF THE

**HERRON RAILWAY TRACK**  
Models of this Track, on the most improved plan may be seen at the Engineer's office of the New York & Erie Railroad

**W. . ATKINSON,**  
CIVIL ENGINEER, SURVEYOR AND DRAFTSMAN,  
CUMBERLAND, Maryland.

**R**AILROAD routes located, planned and estimated. Maps and Reports furnished. Researches made for Coal, Iron, Copper, Lead and other Minerals, Metals, &c. Contract work in Tunnels and heavy Graduation measured and reported in detail. Topographical Drawings executed and Lithographs supplied by skilful artists. Mines explored, new Works laid off, and Geological Plans prepared. 81t

**H. SAWYER**

(of the late firm of SAWYER & HOBBY),  
Manufacturer of Transits and Levels,

HAS removed to Union Place near Warburton Av., Yonkers.  
N. Y.

**J. S. Sewall,**  
CIVIL ENGINEER,  
ST. PAUL MINNESOTA.

**PHILADELPHIA RAILWAY AGENCY**  
AND  
**General Furnishing Depot**  
OF ALL ARTICLES REQUIRED BY  
**RAILROAD COMPANIES,**  
No. 80 South Fourth street,  
**PHILADELPHIA.**

Railroad Chairs,	Engineers' Lanterns,
Railroad Spikes,	Locomotive Head Lights,
Car Wheels,	Car and Switch Locks,
Car Axles,	Jack Screws, Vises,
Boiler and Tank Rivets,	Patent Oil Cans,
Bolts, Nuts, Washers,	Steam Gauges,
Car Lanterns and Lamps,	Steam Whistles,
Conductors' Lanterns,	Spring Balances,
	Car Findings &c., &c.,

**A**LL orders promptly filled at manufacturers' prices and forwarded with despatch. Particular attention paid to contracting for Locomotives, Cars, Railroad Iron, &c.

The subscriber being Agent for several manufacturers of Machinists' Tools is enabled to furnish Railroad Companies with Lathes, Planing Machines, Drills, &c., of the best quality at manufacturers' prices.—Orders solicited  
50 1y THOS. M. CASH.

**BUFFALO CAR COMPANY.**

**T**HIS Company having now completed their extensive Car Works are filing orders for the construction of PASSENGER BOX, BAGGAGE, PLATFORM and CATTLE CARS of the most approved style and finish. The works have connections with the various lines of railway east and west, which gives them all required facilities for the delivery of cars in every direction.

Orders are respectfully solicited, address to the  
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